

CU

# AMIGA

M A G A Z I N E

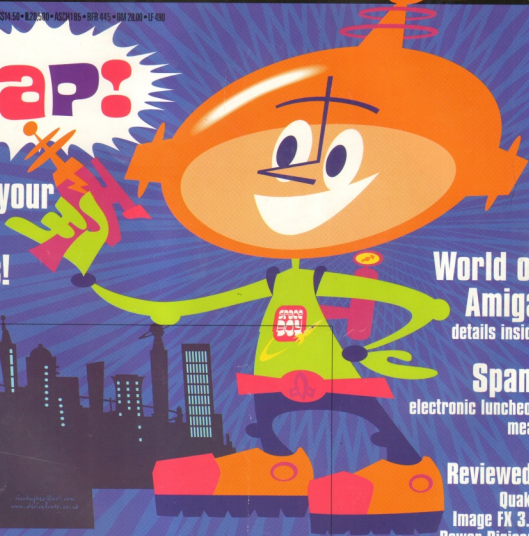
June 1998 £5.99 US\$14.50 • B29.500 • ASCI105 • BFR 445 • DM 29.00 • LF 400

## ZAP!

Make your  
own  
games!



[www.amiga.com](http://www.amiga.com)  
[www.amiga.co.uk](http://www.amiga.co.uk)



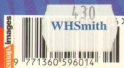
World of  
Amiga  
details inside

Spam  
electronic luncheon  
meat

Reviewed:  
Quake  
Image FX 3.0  
Power Digicam

No CD-ROM? Ask your Newsagent!

CD edition, disk  
version also available



# Weird Science

Q House, Troon Way Business Centre, Humberstone Lane, Leicester. LE4 9HA

Phone 0116 246 3800

Fax 0116 246 3801

Email sales@weirdscience.co.uk

WWW www.weirdscience.co.uk

## AMINET CDs



**ALL ONLY £10.99 EACH**

Subscribe to the Aminet Series and receive each CD for just £8.99.  
Subscription is FREE and each CD is only charged upon release.



**£27.99 £27.99 £15.99 £15.99 £15.99**

**AMINET 24 AND SET 6 IN STOCK NOW!**



**£29.99 £69.99 £39.99 £19.95 £19.95**



**£9.99 £12.99 £12.99 £10.99 £34.99**



**£29.99 £19.95 £22.99 £19.95 £9.99**



**£24.99 £9.99 £39.99 £17.99 £9.99**



Deluxe Paint 5 is now available on CD-ROM of Floppy Disk.

**DELUXE PAINT 5**

**£17.99**



Blitz Basic 2.1 is now available on CD-ROM of Floppy Disk.

**BLITZ BASIC 2.1**

**£17.99**



Full Version available now inc. Networking & Amiga Emulation.

**AMIGA FOREVER**

**£39.99**



Lightrom 4 £19.99  
Lightrom Gold £14.99  
Dem Rom £ 9.99

**LIGHTROM 5**

**£29.99**

Siamese RTG 2.1 CD	£ 29.99
Elastic Dreams CD	£ 49.99
AGA Toolkit	£ 9.99
In-To-The-Net CD	£ 9.99
The Learning Curve	£ 19.95
Miami & In-To-The-Net CD	£ 29.99
Personal Suite CD-ROM	£ 4.99
Personal Paint 6.4 & Manual	£ 4.99
Imagine 3D PD	£ 14.99
Fusion (Mac Emulator)	£ 49.99
PCX (PC Emulator)	£ 49.99
Speccy '98	£ 14.99
Retro Gold	£ 9.99
Epic Encyclopedia '97	£ 19.95
Amiga Desktop Video 2	£ 14.99
Magic Workbench Enhancer	£ 9.99
Epic Collection 3 CD	£ 14.99
NFA AGA Experience 3	£ 9.99
IBrowse (Full Version)	£ 24.99
The Hidden Truth	£ 19.95
Enc. of the Paranormal	£ 14.99
3D CD 1 Objects	£ 9.99
3D CD 2 Images	£ 9.99
UPD Gold	£ 14.99

TRADE & RETAIL DISTRIBUTORS FOR GTL, SCHATZTRUNK, CLAUDIO GRAPHIC DETAIL, INTERACTIVE, EPIC, SADNESS, PD SOFT, HISOFT, VULCAN, GUILDHALL LEISURE, AND AMIGA INTERNATIONAL.

International Distributor:





**PC NETWORK**

Access all of the PC Drives.  
Read & Write to the PC.  
Load files directly from the PC.  
Up to 49k/sec for Amiga > PC.  
Up to 29k/sec for PC > Amiga.  
Easy installation for Amiga & PC.  
Requires WB2.04+ & Windows 95.

**NEW COMPANION CD-ROM NOW INCLUDED**

Network PC includes a 3m Cable, installation disks for both computers, detailed manual and a companion CD-ROM. The CD contains utilities for the Amiga & PC and the Amiga Emulator for Windows 95 with games & demo files.

**£17.99**

**NETWORK PC** THE DEFINITIVE  
AMIGA TO PC  
LINKUP SYSTEM  
JUST GOT BETTER

**£17.99**

**FREE**  
WITH  
ORDERS  
OVER  
**£25.00**

**NFA AGA EXPERIENCE 3**

Remember to ask for your FREE CD, as it is not automatically shipped. Please add the required postage.

**MYST** **ON ESCAPEE** **FINAL ODYSSEY**

**£29.99** **£29.99** **£29.99**

**Utopia** **GENETIC SPECIES** **FOUNDATION**

**£29.99** **£29.99** **£29.99**

**NEW GAMES**

**QUAKE**

The most eagerly awaited game ever for the Amiga is here. All the features of the PC version are present including the use of game expansions. Go kick some.

**£29.99**

**Time & Reckoning**

Hundreds of add-ons for Quake and Doom 2 ready to use from the CD. The contents include Bots, CTF, 100's of Levels, new weapons and game extras.

**£19.95**

**PURCHASE QUAKE & TIME OF RECKONING FOR ONLY £39.99**

**SHADOW OF THE THIRD MOON** **BLADE** **TRAPPED 2** **NAPALM** **THEME PARK**

**£24.99** **£14.99** **£19.99** **£29.99** **£12.99**

**DEPTHS OF DOOM TRILOGY** **DOOM 2 ONLY** **£14.99**

**£19.99**

**MALICE FOR QUAKE**  
MORE THAN JUST A MISSION PACK  
IT'S A WHOLE NEW GAME  
**£14.99**  
Requires Quake

**Blizzard PPC Cards for the Amiga 1200**

603e 160 Mhz with 040 £249.00 or with 060 £489.00  
603e 200 Mhz with 040 £309.00 or with 060 £539.00  
603e+ 160 Mhz with 040 £299.00 or with 060 £529.00  
603e+ 200 Mhz with 040 £369.00 or with 060 £599.00

A1200 4Mb Ram £49.99 Viper Mk 2 £30 £79.99

Other Hardware available call for a full price list.

Picaso 4 24 Bit GFX Card £249.99  
Two Speed CD-ROM & Squirrel Bundle £79.99  
Four Speed CD-ROM & Squirrel Bundle £119.99  
Eight Speed CD-ROM & Squirrel Bundle £149.99  
Twelve Speed CD-ROM & Squirrel Bundle £169.99  
A1200 4Mb Ram £49.99 Viper Mk 2 £30 £79.99

ProMidi Amiga Midi Interface £24.99  
Squirrel SCSI £54.99 or Surf Squirrel £89.99  
560 dpi 3 Button Amiga Mouse £10.99  
2 Button Mouse £2.99 or CD32 Joypad £3.99  
Competition Pro Amiga Joypad £16.99  
External Amiga Floppy Drive £39.99

**Amiga Tower Systems**

Amiga 1300 £249.99  
Amiga 1400 £489.99  
Amiga 1500 £599.99

**Power Tower Systems**

Amiga Keyboard £149.99 or Amiga KIB £169.99

**Amiga Tower Systems**

Tower Kit £159.99  
Zorro 2 £149.99  
Zorro 3 £319.99  
3.5" Bay £11.99  
5.25" Bay £29.99

**Keyboard Case** £39.99  
**PCMCIA Adp.** £29.99  
**4 Way IDE** £34.99  
Hit Scan Doubler £79.99  
SVGA Monitors Available

Macac 4 CD	Civilization	£ 12.99	Lemmings	£ 12.99
Street Racer CD	Mary Mayhem	£ 12.99	Cannon Fodder 1 or 2	£ 9.99
Ultimate Gloom £12.99	Mega Typocon	£ 10.99	Dog Fight	£ 9.99
Wendetta CD £19.99	Minskies	£ 9.99	Player Manager 2	£ 9.99
Strangers CD £19.99	Polish Fantasia AGA	£ 12.99	Dune II	£ 12.99
Big Red Air CD £19.99	Road Kill	£ 4.99	Railroad Tycoon	£ 12.99
Theme Park AGA	Road Rash	£ 8.99	Overlord	£ 12.99
Time Machine	Starfall AGA	£ 16.99	Enemy	£ 12.99
Time Keepers	Spiritual Worlds	£ 8.99	Anarchy Action	£ 12.99
Time Keepers Exp. Disk	Super Skidmarks	£ 8.99	Acid Attack	£ 12.99
The Toy Adventure AGA	Testament	£ 12.99	Brutal AGA	£ 12.99
Tiny Troops	Theme Park AGA	£ 12.99	Brutal AGA	£ 12.99
Torony Gun	Time Move	£ 12.99	Brutal AGA	£ 12.99
UFO	Time Keepers	£ 12.99	Crucible Chess	£ 4.99
Valkia 1	Time Keepers Exp. Disk	£ 4.99	Desert Strike	£ 9.99
Valkia 2	The Toy Adventure AGA	£ 24.99	Extreme Racing AGA	£ 12.99
Valkia 3	Tiny Troops	£ 16.99	F15 Strike Eagle II	£ 12.99
Virtual Karting AGA	Torony Gun	£ 14.99	F15 Stealth Fighter	£ 12.99
Witch Tower	UFO	£ 12.99	F15 Nighthawk	£ 9.99
Grand Stan Gold	Valkia 1	£ 14.99	Gigapop	£ 4.99
Zweifel 2	Valkia 2	£ 14.99	Micropro Grand Prix	£ 12.99
	Valkia 3	£ 14.99	Formula 1 Masters	£ 12.99
	Virtual Karting AGA	£ 8.99	Hillside Golf	£ 12.99
	Witch Tower	£ 12.99	Hillside Golf	£ 24.99
	Grand Stan Gold	£ 9.99	Impossible Mission 2025	£ 4.99
	Zweifel 2	£ 2.99	Jet Pilot	£ 16.99

**TELEPHONE ORDER HOTLINE**  
**0116 246 3800**

UK Postage & Delivery Rates:  
CD-ROMs, £1.00 for the 1st item and 50p each extra item.  
GAMES, £2.00 for the 1st item and £1.00 each extra item.  
HARDWARE, £6.00 up to £150 value and £18.00 above £150.  
Overseas rates are double for CD-ROMs and GAMES.

We will PRICE MATCH on Software



## News

**10** All the latest developments on the Amiga scene, plus Stateside.

**12** Advertisers Index

## Screen Scene .....40

**38** Games News

Reviews:

**42** Quake

**45** Malice

**46** Labyrinth of Time

**48** Tips Central

**49** Adventure Helpline

## Tech Scene .....50

**50** ImageFX 3.0

**55** Turbo Print 6

**56** TV Amazing

**57** Scan Doublers

**59** Sirius Genlock

**62** AWeb

**63** Master ISO

**64** Power Digital Camera

**66** PD.Net

**68** PD.Post

**70** Art Gallery

**72** User Groups

## Workshop .....75

**76** Personal Paint 6.6

**80** Amiga C Programming

**83** Back Issues

**84** Net God

**85** Surf of the Month

**86** Wired World

**88** Scala MM300

**90** Reviews Index

**95** Next Month/Shop Save

**96** Q&A

**99** A to Z

**100** Backchat

**103** Subscriptions

**104** Points of View

**106** Techno Tragedies

Quake 42



ImageFX 3.0 50

Power Digital Camera 55



Sirius Genlock 59



## Cover disks

**14 Super CD-ROM 23**

There's a bit of a game creation theme to the CD this month. As well as the full Reality Game Engine there's advanced development tools, SEUCK and all the latest shareware, reader contributions, samples, mods and utilities, plus an MPEG audio recording of Petro's speech at a recent Amiga show.

**18 Reality Game Engine**

All you need to make your own Amiga games, the Reality Game Engine is here and fully functional. Created with ease of use in mind, it could be your first step towards producing that award-winning game.

No programming knowledge is required. Now anyone can turn their game ideas into reality.



## FLOPPY DISK DRIVES

A500 INTERNAL DRIVE	£34.95
A600/A1200 INTERNAL DRIVE	£34.95
A2000 INTERNAL DRIVE	£39.95
PC880E EXTERNAL DRIVE	£39.95
XL 1.76MB EXTERNAL DRIVE	£65.95
XL 1.76MB INT. DRIVE A4000	£80.95



## IOmega ZIP DRIVE

- Inc. cable and Zip tools s/w, 1 cartridge ZIP DRIVE 100MB SCSI\* ..... £135.95
- ZIP DRIVE INCLUDING SQUIRREL ..... £169.95
- ZIP DRIVE IDE INTERNAL ..... £149.95
- 100MB ZIP CARTRIDGE ..... £14.00



## Modem Bundles

### MODEM ONE BUNDLE

- 56.6BPS Modem and cables
- Net and Web software
- I browse software
- One month free with Demon internet

MODEM BUNDLE ONE ..... £99.95



### MODEM TWO BUNDLE

- 56.6BPS Modem and cables
- Net and Web software
- I browse software
- One month free with Demon internet
- Whippet fast serial interface A600/A1200

MODEM BUNDLE TWO ..... £119.95



### MODEM THREE BUNDLE

- 56.6BPS Modem and cables
- Net and Web software
- I browse software
- One month free with Demon internet
- Surf squirrel SCSI-2 serial interface for A1200 PCMCIA connection

MODEM BUNDLE THREE ..... £169.95



## GVP PRODUCTS

- GVP HC-8 SCSI INTERFACE ..... £99.95
- GVP GURU ROM V6 NEW REVISION ..... £49.95
- GVP DSS-8 SOUND SAMPLER ..... £59.95
- GVP 4MB RAM MODULE ..... £59.95
- GVP 16MB RAM MODULE ..... £99.95
- GVP A1200 SCSI INTERFACE ..... £99.95

FOR ALL A1200 ACCELERATOR CARDS



## MISCELLANEOUS

- POWERTAB - GRAPHIC TABLET ..... £19.95
- ZIP RAM STATIC COLUMN PER MB ..... £16.95
- BREATHLESS 3D GAME ..... £19.95
- BIG RED ADVENTURE CD-ROM ..... £19.95
- HEAVY DUTY PSU 200 WATT ..... £69.95
- OFFICIAL AMIGA MOUSE AND MAT ..... £9.95



**BWARE OF NONE  
CE PSU'S**

"The Rolls Royce  
of PSU's"  
AMIGA FORNAT



## JOYPAD OFFER

- Joypad, for use with many games  
GAMES JOYPAD ..... £14.95

## HARD DRIVES

- Inc. cable and software and fitting screws
- 2.5" HARD DRIVE 1.3GB ..... £129.95
- 2.5" HARD DRIVE 1.6GB ..... £169.95
- 2.5" HARD DRIVE 2.1GB ..... £189.95
- 3.5" HARD DRIVE 1.7GB ..... £129.95
- 3.5" HARD DRIVE 3.2GB ..... £169.95
- STACK CABLE FOR THE 3.5" HD ..... £12.95
- 3.5" HD's recommended for A1200 Tower
- EXTERNAL SCSI HD 2.1 GB ..... £249.95
- INTERNAL SCSI HD 2.1 GB ..... £199.95

## VIDEO BACKUP DEVICE

- Backup 520MB onto a 4HR VHS tape
- VIDEO BACKUP - PHONO ..... £20.00
- VIDEO BACKUP - SCART ..... £20.00

## CYBERVISION 64-3D CARD

- Hi-res 64-bit graphic card
- 4MB of display memory
- For the A2000/3000(T)/4000(T)

CYBERVISION 64-3D CARD ..... £169.95

SCANDOUBLER CYBERVISION ..... £89.95



## Amiga Scanners

### FLATBED SCANNERS

- Epson A4 Flatbed Scanner
- 24-bit colour scanning
- Greyscale and line art modes
- OCR software available at £20
- EPSON GT-5000 SCANNER ..... £219.95
- EPSON GT-5000 + SOFTWARE ..... £249.95



### HAND SCANNERS

- Includes interface and software
- Colour scanner is AGA 24-bit/400DPI
- POWERSCAN BLACK & WHITE ..... £59.95
- POWERSCAN COLOUR INC. OCR SW ..... £99.95
- SCANNER OCR SOFTWARE ..... £20



## Epson Printers

### EPSON STYLUS PRINTERS

- Includes Turbo Print LE and cable
- EPSON 600 A4 1440DPI COLOUR ..... £239.95
- EPSON 800 A4 1440DPI COLOUR ..... £289.95
- TURBO PRINT 6 FULL VERSION ..... £39.95
- TURBO PRINT 6 LE VERSION ..... £25.95



### CATWEASEL MK2

- A4000/1200 high density drive controller
- Allows you to connect any PC Drive



### ORIGINAL A4000 KEYBOARD/INTERFACE £40

## NEW POWER IO-EXTENDER INTERNAL

- POWER PORT JUNIOR (1 x high speed serial) ..... £39.95
- POWER PORT PLUS (1 x parallel, 2 x serial) ..... £69.95
- POWER PORT Z3 (2 x parallel, 1 x serial) ..... £65.95
- A2000/4000 ONLY (ZORRO I/II/III)



**01234 851500**

FAX 01234 855400

UNIT 82A SINGER WAY  
KEMPSTON MK42 7PU

Visit our web site [www.powerc.com](http://www.powerc.com)  
Email [sales@powerc.demon.co.uk](mailto:sales@powerc.demon.co.uk)



**POWER**

COMPUTING LTD



# The New A1200 Power Tower

## A1200 POWER TOWER

- Includes 200 watt PSU
- PC Keyboard
- PC Keyboard Interface
- Floppy drive facia - floppy cable
- All screws, port labels and mains lead

## A1200 POWER TOWER 1

- Power Tower and Keyboard
- A1200 Main board
- Floppy disk drive
- 3.1 Workbench
- 3.1 Manuals
- Wordworth 4.5SE
- TurboCalc 3.5 Spreadsheet
- DataStore 1.1 Database
- Photogenic 1.2se
- Personal Paint 6.4 & Organiser 1.1
- Pinball Mania game & Wizz game

**A1200 POWER TOWER**  
**£149.95**

**A1200 POWER TOWER 1**  
**£359.95**

**A1200 POWER TOWER 2**  
**£759.95**

## A1200 POWER TOWER 2

- Power Tower
- Keyboard
- A1200 Main board
- 24x Speed IDE CD-ROM
- 2.1GB Hard drive
- Apollo 1240 25MHz 16MB
- 4 way IDE interface/IDEFix97 software
- Floppy disk drive
- 3.1 Workbench
- 3.1 Manuals
- Wordworth 4.5SE
- TurboCalc 3.5 Spreadsheet
- DataStore 1.1 Database
- Photogenic 1.2se
- Personal Paint 6.4 & Organiser 1.1
- Pinball Mania game & Wizz game



**WE CAN MANUFACTURE ANY CABLE - CALL FOR A PRICE**

## A1200 POWER TOWER ACCESSORIES

Zorro (SPC), 2 ISA, 2 Video Slots (option)	£149.95
Zorro III (5 PCI, 2 ISA, Video (option), A4000 CPU Slot)	£319.95
PCMCIA V Adaptor - allows squirrel to be fitted internally	£29.95
External Audio Port for internal CD-ROM (needed for listening to Music CD's and games that use CD audio)	£15.95
SCSI-I Adaptor - Internal 50 way pin header, external 25 way connector	£19.95
SCSI-II Micro high density connector. Internal 50 way pin header, external micro HD connector	£25.95
SCSI-III 3-Way Ultra Wide internal connector, external micro HD connector	£45.95
SCSI-III 7-Way connector	£69.95
SCSI-III Terminator	£39.95
4 Way IDE Interface (buffered) & IDEFix '97 software	£30.95



## AMIGA 1200 MAGIC PACK

- 2MB RAM 68020 14.3MHZ
- AGA CHIPSET
- WORDWORTH 4.5SE (WORDPROCESSOR)
- TURBOCALC 3.5 (SPREADSHEET)
- DATASTORE 1.1 (DATABASE)
- PHOTOGENIC 1.2SE/PERSONAL PAINT 6.4
- ORGANISER 1.1 (PERSONAL ORGANISER)
- PINBALL MANIA (GAME)



## AMIGA BUNDLE ONE

- AMIGA BUNDLE ONE INCLUDES:
- AMIGA 1200 MAGIC PACK
  - 4MB RAM INCLUDED

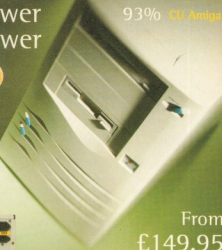
**AMIGA**

**POWER ARE OFFICIAL SUPPLIERS OF THE AMIGA 1200**

# The Power Tower

97% Amiga Format

93% CU Amiga



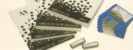
From  
**£149.95**



All Power Towers are assembled by Power Computing

All prices include VAT. See DPS ad for terms and conditions

3 Way IDE ribbon cable (suitable for HD's, CD-ROM)	£9.95
3 Way SCSI 50 pin header (suitable for HD's, SCSI CD-ROM)	£15.95
Iomega ZIP drive - Internal inc. cable IDEFix software, Power Zip Tools, 100MB Cartridge and IDE 4 way buffered interface	£149.95
Panasonic LS120 External - 120MB Floppy drive. Also recognises 1.44MB discs. Inc. cable, IDEFix software, 120MB disc and IDE 4 way buffered interface (AF Gold 92%)	£149.95
Panasonic LS120 Internal - Spec as above	£129.95
Panasonic LS120 Internal - No IDE Fix	£95.95
Panasonic LS120MB Floppy Disk	£12.95
25 Watt (PMPO) Typhoon speakers inc. adaptor cable	£19.95
260 Watt (PMPO) Typhoon speakers inc. adaptor cable	£49.95
200 Watt (PMPO) Typhoon subwoofer and control box	£55.95
PC Keyboard Interface	£29.95
Printer Switchers - In Stock	£24.00



## AMIGA 3.1 OPERATING SYSTEM INC.

- ROM CHIP, SOFTWARE AND MANUAL
- A1200/3000 3.1 OS ..... £45.95
- A500/600/2000 3.1 OS ..... £39.95
- A4000 3.1 OS ..... £45.95
- A500/600/2000 3.1 CHIP ONLY ..... £25.95
- A1200/4000 3.1 CHIP ONLY ..... £29.95



**01234 851500**

**FAX 01234 855400**

**UNIT 82A SINGER WAY  
KEMPSTON MK42 7PU**

Visit our web site [www.power.com](http://www.power.com)



## AMIGA 4000 TOWER IDE/SCSI INCLUDES

- 32MB RAM ON-BOARD
- 1.7GB HARD DRIVE, 3.01 OS
- 68040 25MHZ PROCESSOR
- A4000 TOWER ..... £1099

MONITOR NOT INCLUDED

**£1099**



**POWER**

COMPUTING LTD

## APOLLO 68030

- A2000 68030-50MHz
- Upto 64MB RAM
- FPU optional
- Bare .....£169.95
- Inc. FPU .....£199.95

## APOLLO 68040

- A1200 68040 Accelerator
- Apollo 1240 25MHz ...£129.95
- Apollo 1240 40MHz ...£189.95

## VIPER MK2

- A1200 68030 40MHz
- Full MMU and 40MHz FPU
- Viper MK2 Bare .....£79.95
- Viper MK2 8MB .....£94.95
- Viper MK2 16MB .....£104.95
- Viper MK2 32MB .....£119.95
- Viper MK2 64MB .....£199.95

## VIPER 520CD

- A500 Accelerator Card
- 68020EC 33MHz without MMU
- PGA FPU Socket 33MHz Only
- Space for IDE 2.5" Hard Drive
- 2 x 40-Pin CD-ROM/HD Socket
- 8MB RAM On-board
- 3.0 ROM inc. software
- Fat Agnus slot to fit mini-chip
- Viper 520CD .....£99.95

## MEMORY SIMMS

- 4MB 72-pin SIMM .....£9.95
- 8MB 72-pin SIMM .....£15.00
- 16MB 72-pin SIMM .....£25.00
- 32MB 72-pin SIMM .....£40.00
- 32MB Single side/Blizzard£89.95

## 2.5" HARD DRIVES

- Complete with 2.5" IDE cable
- Install Software, Fitting Screws
- Partitioned and Formatted
- For the A1200 Computer
- 1.3GB Hard Drive .....£129.95
- 1.6GB Hard Drive .....£169.95
- 2.1GB Hard Drive .....£189.95

## ADD MONITORS

- Year on-site/2 year return to base warranty
- 14" Digital .....£124.95
- 15" Digital .....£155.95
- 17" Digital .....£319.95

## AMIGA MONITOR

- Official 1084s inc. speakers
- 1084s Amiga Monitor ...£99.95



## APOLLO 68060

- A1200 68060 Accelerator
- Apollo 1260 50MHz £269.95
- Apollo 1260 66MHz £319.95
- 66MHz is clocked up



## 1230 TURBO LE

- Not PCMCIA friendly
- IDE Buffered compatible
- 33MHz inc. 33MHz FPU
- Compatible with IDE CD-ROM
- 1230 Turbo 4MB .....£59.95
- 1230 Turbo 8MB .....£69.95

## BLIZZARD 603E

- A1200 PowerPC Card
- 603e PowerPC with 68K CPU
- No SCSI, cannot be upgraded
- Up to 128MB RAM
- 160MHz with 68040/25 £259.95
- 160MHz inc 040/25 SCSI £299.95
- 200MHz inc 040/25 SCSI £359.95

## CYBERSTORM PPC

- A3000/4000(T) PowerPC Card
- 604e PowerPC with 68K CPU
- Ultra wide SCSI-3, inc. FPU/MMU
- 180MHz PPC No CPU ...£19.95
- 200MHz PPC No CPU ...£615.95
- 180MHz with 68040/25 £559.95
- 180MHz with 68060/50 £745.95
- 200MHz with 68040/25 £649.95
- 200MHz with 68060/50 £849.95

## VIPER 630

- A600 Accelerator Card
- 68030 33MHz Processor
- Up to 32MB RAM (1 x SIMM)
- FPU Included, PCMCIA friendly
- A600 0MB 33MHz .....£75.95
- A600 4MB 33MHz .....£85.95
- A600 8MB 33MHz .....£95.95
- A600 16MB 33MHz ...£115.95
- A600 32MB 33MHz ...£150.95

## DIGITAL CAMERAS

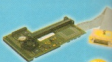
- Ideal for Web graphics!
- Comes complete with Amiga s/w
- VDC100 Camera .....£99.95
- VDC200 inc.LCD screen£199.95

## SCAN MAGIC

- Converts a VGA monitor to Amiga mode
- Internal .....£54.95
- Internal Inc. Flicker Fixer .....£99.95

## SCAN DOUBLER

- AGA Mode 16 million colours
- Scandoubler mode 15MHz 16bit
- Interlace and non-interlace
- Works on any VGA monitor
- External with Flicker Fixer£99.95
- ScanDoubler External ...£69.95



## SPECIAL OFFER

Special FPU prices when purchased with any accelerator card.

20MHz (PLCC) ....	£10
33MHz (PLCC) ....	£15
40MHz (PGA) ....	£20
50MHz (PGA) ....	£29

**£49.95**



- For A1200/600, A500 call
- 4Way buffered interface + IDE'97\*
- Chaos Engine\*
- Oscar/Diggers CD-ROM\*
- Power Supply Unit\*

24x External	£119.95
24x Internal	£49.95
32x Internal	£69.95

\*Only comes with External CD-ROM drives. Internal drive is also suitable for the Power Tower system - requires IDE interface and IDE fix '97

- External CD-ROM Drive
- Squirrel PCMCIA SCSI Interface
- Chaos Engine CD-ROM
- Oscar/Diggers CD-ROM

4x External CD-ROM . . .	£119.95
8x External CD-ROM . . .	£149.95
12x External CD-ROM . . .	£169.95
24x External CD-ROM . . .	£199.95
32x External CD-ROM . . .	£229.95

4x Internal CD-ROM . . .	£54.95
8x Internal CD-ROM . . .	£84.95
12x Internal CD-ROM . .	£104.95
24x Internal CD-ROM . .	£134.95

CD-ROM comes with 3 way SCSI cable



**£79.95**

- Squirrel PCMCIA SCSI Interface
- External Power Supply Unit
- Chaos Engine CD-ROM
- Oscar/Diggers CD-ROM

- 4MB only not upgradable

A1200 4MB RAM . . . . .	£39.95
40MHZ FPU . . . . .	£15.00

- MByte 32-bit zero wait state Fast-RAM

- Auto-recharge battery clock
- Socket for PGA FPU 68882 up to 50MHz
- Fully auto-configuring Chip-RAM
- Fits easily into the trapdoor
- 4MB PCMCIA compatible (not 8MB)

4MB RAM .....	£45.95
8MB RAM .....	£55.95
40MHZ FPU .....	£15.00

- Inc. 2MB zero wait state Fast RAM
- Auto-recharge battery clock
- Fits easily into the CPU socket
- Fully Auto-configuring RAM
- Increases the speed of your CDTV

**CDTV 2MB RAM ..... £49.95**

• 1MB of Chip RAM  
Mini Mega Chip . . . . .£99.95

- Factory installed 2MB RAM
- Auto-recharge battery clock
- Fully auto-configuring RAM
- Works with all A500's WB1.3 and above

A500 2MB RAM . . . . .£49.95

- 1MB CHIP RAM
- Fits into the A500+ trapdoor
- Fully auto-configuring Chip RAM
- Works with all A500+

**A500 1MB CHIP RAM . . . £19.95**

A500 1MB CHIP RAM . . .£19.95

- 1MB CHIP RAM
- Auto-recharging battery clock
- Fits into the A600 trapdoor
- Fully auto-configuring Chip RAM
- Works with all A600 & A600HD

**A600 1MB CHIP RAM . . . £24.95**

A600 1MB CHIP RAM . . . £24.95

NAME ..... ADDRESS .....

..... POSTCODE ..... TEL No. ....

ITEMS .....

TOTAL (INC.DELIVERY) £..... CREDIT CARD No.

SIGNATURE ..... EXPIRY ISSUE No. ....

DELIVERY    2-3 DAYS £5.00 ☐      NEXT DAY £8 ☐      SAT £15 ☐      SUBJECT TO PRODUCT AVAILABILITY



PHONE      FAX 01234 855400

01234 851500

POWER COMPUTING LTD  
UNIT 82A SINGER WAY  
KEMPSTON MK42 7PU



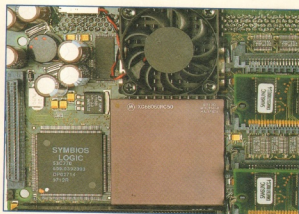


# News

## Worldwide 68060 Shortage

**P**roducts utilising the top of the range Motorola 68060 processor are suffering delays due to availability problems. phase 5 were forced to delay the launch of the '060 variant of the Blizzard PPC card for several weeks due to this shortage, and their next batch of 68060 chips is not expected to last beyond their current backlog of orders. While small stocks of 68060 chips apparently remain in the hands of Amiga companies such as Paxtron in the USA and ACT in Germany, the shortages are being felt throughout the industry, with 68060 based products becoming very hard to find.

CU Amiga Magazine has been hearing numerous complaints in the last few weeks from companies who are struggling to fulfil demand for these processors, and from end users who have been unable to get the accelerator cards they want. According to Motorola, they actually have large stocks of the wafers but are not able to prioritise the assembly of the wafers into cases. The changeover of the LC and EC com-



▲ The Cyberstorm PPC card, with one of the increasingly rare 68060 CPUs.

ponents to spare 0.42 fabrication has caused problems in the normal process of assembly for the RC components used in computers, and recent large orders for the cut down parts from industry users of the '060 have overstretched the capacity of the casing facilities.

A spokesman for the company assured CU Amiga Magazine that they were trying to break the backlog as soon as possible, and that phase 5, as the largest user of the CPU in Germany, were top priority when the chips start leaving the factory again.

## MOD turns to Amiga

The Royal Navy has awarded a contract to Thorn electronics for 20 on ship weather satellite download systems after the company's Amiga based proposal beat five other tenders from companies using Macintosh or PC hardware. The Amiga based systems will consist of A4000 motherboards in 19" rack mountings with Ram, hard discs, CyberStorm '060 cards and Picasso 4 graphics cards. The Amiga based bid won because the system simply outperformed the other ones.

The naval contractees were apparently impressed by the ability of the Amiga system to smoothly multitask the satellite downlink, 3D weather mapping and printer plotter control, and were particularly taken by the fact that the Amiga based systems can completely reset themselves within 20 seconds.

White Knight Technologies have been asked to supply the hardware, although current shortages in '060 cards and A4000Ts has made the task harder than they had hoped.

## And, finally, NetConnect v2

Active Technologies will finally release the CD version of NetConnect v2 in May.

There are many changes and additions since the previous release,

not least that it will ship with a new TCP stack called "Genesis". Genesis is based on the original AmiTCP Professional and will allow dial-up Internet access as well as local area

networking or both (due to its unique ability to open multiple interfaces).

X-Arc is another new edition for version 2.

Similar to WinZip on

Windows or Stuffit on the Mac, it brings advanced archive management to the Amiga via a central control interface. Download an archive from the Internet and it is automatically extracted into the X-Arc main window where you can edit, view, copy or run any of the files from within the archive.

NetConnect is available for £59.95 from Active Technologies. Genesis and X-Arc may also be purchased separately. Call Active for further information on: 01325 460116.



## Seminars at WOA98

Amiga Inc., the Industry Council Open Amiga (ICOA) and AmigaSoc UK will be holding a series of technical and non-technical Developers seminars over both days of the WOA98 Show.

ICOA members will be admitted free to the seminars, while a nominal fee will apply to anybody else. Bookings can be made to [andrew@uk.amigasoc.org](mailto:andrew@uk.amigasoc.org). Use the same address if you are interested in holding a seminar yourself.





## It's Siamese Systems, now

Existing and potential customers of the Siamese System will have a new company to talk to - Siamese Systems Ltd. of Bedfordshire.

The original publisher of the Siamese System, HiQ, has ceased trading. Siamese Systems is honouring its previous customer obligations and consists of essentially the same personnel with new contact information.

The first move of the newly formed Siamese Systems is the wide availability release of Siamese Remote Amiga v2.1 serial edition, available from Siamese Systems direct or several dealers world-wide for £29.95 / \$49.95 US / 79DM.

Siamese remote is basically the

full Siamese 2.5 software with the TCP/IP stack removed. It has the full retargetable capabilities, but functions only over a serial connection.

The idea of the release is to act as a power users rival to current Amiga-PC networking solutions and as a way in to the Siamese system for those who aren't sure what they are getting. Purchasers of the Siamese remote release CD from Siamese systems will be entitled to a full refund against a purchase price of the v2.50 pro Siamese Ethernet system, which is up to 50 times faster than serial in certain operations. Siamese Systems Ltd. can be reached on 01525 211558, or at <http://www.siamese.co.uk>.

## Petro Speaks in Finland

Saku 98, an event organized by the Finnish Amiga Users Group on March 28, was the biggest Amiga only event in Finland in years and has been officially described as a success. Petro Tyschtschenko speech from the show may be heard on this month's CD-ROM, but

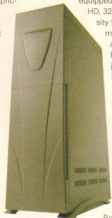
more interest was aroused by Petro's unveiling of the New Amiga Hymn, featuring the lyrics "Back for the future". For further information, visit Finnish Amiga Users Group's Web Site at: <http://batman.jytol.fi/~saku/> or <http://tzmmla.tky.hut.fi/saku/>.

Petro shows off his new cat. ▶

## BoXeR pricing announced

Blittersoft, the UK distributors of the BoXeR AGA motherboard from Index, have announced pricing for the imminent release of the first production run of the latest entry into the Amiga clone market. The pricing has worked out rather higher than initial projected estimates. A bare BoXeR motherboard (includes AGA chipset and 2 Megs of Chip RAM) will be £479.95 inclusive of VAT (just under £410 exclusive). You need to provide the 040 or 060 CPU. Blittersoft have said that they really want to emphasise BoXeR based systems rather than the motherboard as a DIY component, and pricing of their Black Box series of complete sys-

tems brings the value of the BoXeR into a little more perspective. Fully equipped (32 megs RAM, 4 gig HD, 32X CD-ROM, high-density floppy as well as mouse and keyboard in a tower case), the Black Box 040 is projected at £899.95 inclusive, with an 060 model adding £100. Compared to a similarly specced A4000t, the prices look rather good, and specs are higher. The BoXeR technology will be on display at the World of Amiga and is expected to ship (both in motherboard and Black Box form) in August of this year. For more info contact Blittersoft on (0)1908 261466, or at <http://www.blittersoft.com>.



Petro shows off his new cat. ▶

## Exploring New Horizons

2260 Designs, the software team working on Explorer 2260 and Maim & Mangle are undertaking another project called New Horizons. This is a management game set in the same TWf Universe as their other projects and casts the player in control of a space station.

Current system requirements are an Amiga with 020 or better, 6Mb RAM, hard drive, and a CD-ROM. There are also plans to support graphics card, PPC board and possibly even network gaming.

2260 Design require a programmer to develop this title. They say: "The person we are looking for must have experience in system friendly utility/games programming, GFX card support, 3D coding and if

possible TCP/IP support.

Anyone who wants to apply must be able to dedicate a lot of their free time to the project. Information on any previous projects is required. The person will be expected to do the majority of the programming for the game and will also be required to co-ordinate a small group of coders who will help with various tasks."

Anybody interested should contact the team via email at [kornen@zetnet.co.uk](mailto:kornen@zetnet.co.uk) or via snail mail at: 2260 Designs, 14 Holyrood Crescent, Hart Village, Hartlepool TS27 3BB, ENGLAND. They also have a website at <http://www.users.zetnet.co.uk/kornen/>.

## White Knight/PPC trade-in deals

White Knight Technologies, the Amiga specialist and phase 5 dealer, are now offering trade-in and upgrade deals on phase 5's range of Blizzard PPC accelerators for the Amiga 1200. If you already have an 040 or 060 chip, White Knight will supply bare PPC boards for the same price as the LC040 version, ie: the 160MHz PB03 for £235, the 200MHz for £289, and the 240MHz for £355. They will supply the SCSI version at £289 for the 160MHz, £345 for the 200MHz, and £409 for the 240MHz. If you have a phase 5 Blizzard

1240 or 1260 accelerator with the CPU soldered-in, you can send the board to White Knight and they will transfer the CPU to a PPC card for a handling charge of £20. They claim a turn-around time of 2-3 weeks for this process.

Also, White Knight offer trade-in deals to registered owners of Blizzard 1230 cards. They will knock £30 off the price of a PPC board in exchange for a 1230 and £20 pounds for a Blizzard SCSI board.

White Knight may be contacted on: 01920 822321.

## Made For KiDs

Mystique Corporation International, the host of the Amiga's Premier Children's Site, have overseen the creation of a new folder on Amnet solely for children's software as part of their on-going Made For KiDs campaign. Their own website, at <http://www.mystcorp.u-net.com>, features a carefully designed interface to ease the access of this new archive, providing the user with all relevant information and simplifying the download process.

Amiga International and Haage&Partner have both sponsored MystCorp, supporting their efforts to ensure that the Amiga is the computer of choice for children and education. H&P have donated a copy of their StormC and AI have supplied an A4000T to aid Mystique's developments – which include the project CR which MystCorp claim "is the most advanced, feature-packed kid's package currently available on any platform." MystCorp are based in Belfast, Northern Ireland, and may be contacted at: +44 (0) 1232 808 369.

## Haage & Partner new editions and additions

Haage & Partner are now shipping the latest version of Tornado3D, the ray tracing package from Italian developers Eyclight.

New features in V1.5 include a real-time colour preview function for WYSIWYG rendering and full support for the Virge 3D accelerator in the Cybervision 64/3D graphics boards for enhanced performance. Registered users will receive the upgrade free of charge. There will be a full review of this exciting product in next month's issue. More information can be found at <http://www.tornado.com>.

Haage & Partner are also improving their customer support by hiring five new members of staff in this department. These new personnel will handle phone and e-mail queries from users and administer H&P's various mailing lists.

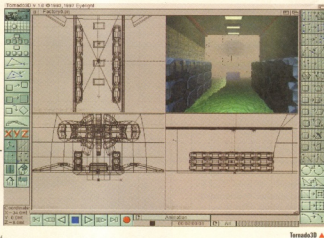
# International AMIGA® 98

## International Amiga 98

North America's foremost Amiga event, International Amiga 98, will be taking place on the 29th and 30th of May at the International Plaza Hotel in Toronto, Canada. Admission price for both days is \$15CAD, but you can save \$5 off this price by registering beforehand with Randomize, the show's hosts. This not-to-be-missed event will

have exhibitors such as Amiga International, Phase 5, Nova Design and Newtek and will feature classes held Amiga personalities such as Amiga International's Joe Torre and Jason Compton of Amiga Report and CU Amiga.

For more information visit the IA98 website at <http://www.randomize.com/ia98.html> or phone Sylvia Bevan 905-939-8371.



## Advertisers Index

Active Technologies	74	01225 460 116
Analogic	IBC	0181 546 9575
Bitstream	17	01900 261 466
Care	32	01923 894 964
Classified	92-94	0171 972 6700
Epic Marketing	34,60-61	0179 340 0900
Eyotech	22-23	01642 713 185
Fast Computers	21	0171 252 3553
First Computer Centre	79	0113 231 9444
HSalt	IBC	0590 223 660
Dwl Associates	32	01543 250 377
Power Computing	6-9	01234 851 500
Selectafont	32	01782 282 835
Weird Science	IFC-3	0116 246 3800
White Knight Technology	54,65	01920 822 321
Wizard Developments	58	0181 383 1600

## News in Brief

### Stickers at last!

OK, we give in. After months of harassment by you guys, we've got together with Amiga International to bring you Powered By Amiga Stickers to put on those unmarked tower cases, or wherever else you fancy. Check in next month's issue for your free sticker!

### New look for Amiga International web site

Amiga International have updated their website to give it a more professional look. Changes include revised layouts and graphics, frames and no frames versions, a new index structure and some new sections. This site can be found at: <http://www.amiga.de>.

### SCALOS released

SCALOS, the Workbench replacement system from Alien Design, the team responsible for the ubiquitous MCP, has been released at last.

Features include full multitasking, an icon datatyping system with NewIcons support, and extensive configurability. The registered version of SCALOS, available for 300M, emulates WB with compatibility claimed at 99.9%. Details are available from: <http://www.aliendesign.net>

### Cut-price UniverseDigital

Universe v1.03, the award-winning astronomical simulator package from Syzygy, is now available on CD-ROM for half-price. Syzygy say, 'With our new lower price, we expect the software to become more accessible to the casual astronomy enthusiast.' This new CD-ROM distribution, with no printed manual or box, ships for \$75CD which exchanges currently to about £31.

Syzygy are also offering discounts of \$10 for bulk orders of 5 copies or more. More information on Digital Universe can be found at: <http://www.syz.com/DU/amigacd.html>.



# Stateside News

by Jason Compton: Editor in Chief of Amiga Report Magazine

## ICOA Fumbles Election

The ICOA (Industry Council Open Amiga) is the latest in a series of populist groups started to further the cause of the Amiga. The ICOA has been around in one form or another for over a year, and has operated under the leadership of the Temporary Steering Committee – a group of five Amiga luminaries, professionals, and enthusiasts.

The real steering committee was to be elected after the temporary version got the group operational, and by some accounts, it is: the ICOA is a registered corporation, has made speeches and held discussions around the world, and has a website.

However, the election of the first steering committee member has not gone smoothly. The position of "User Representative" included a joke candidate, and the results have been mysteriously held up due to "irregularities." The final result was marred by claims of fraudulent votes and a three way tie, and after hasty negotiations, a new round of elections have been announced.

Nominations for the next round are open until 30th May. Entries must include contact details for the nominee and five supporters, along with a statement from the nominee agreeing to the terms of the election and the decisions of the

arbiters, and a statement of not more than 500 words detailing the nominees position which will be posted to the ICOA website. Postal entries may be made to:

**USA/Canada:** Andrew Biehaupt,  
90 Fair Crescent, Cambridge,  
Ontario NJC 1N6, Canada

**UK:** Ben Hutchings,  
19 Lewell Avenue, Oxford OX3 0RL

If you have internet access, you can check all the latest from ICOA at their website, [www.amiganet.org/icoa/](http://www.amiganet.org/icoa/)

## Newtek Slashes Prices

In response to the growing field of non-linear editors and competing desktop video products, Newtek has slashed prices on Amiga Toaster/Flyer bundles. What's almost more interesting is the way in which they announced it.

The price of a 4000T with Toaster and Flyer installed is an all-time low US\$5900. (Previously, a comparable system sans Amiga could run that much, or more.) At the other end of the spectrum, a Video Toaster 4000 is just US\$1000. These levels of prices may make the systems more attractive for European use even with the need for an external NTSC/PAL conversion.

What has caught many eyes is the fact that Newtek's price announcement explicitly mentions an Amiga 4000T – for years, Newtek has been accused, for good reason, of obscuring or hiding the fact that their flagship product relies on Amiga technology.

Newtek can be reached at +210-370-8000, [www.newtek.com](http://www.newtek.com)

## World Construction: More Than 6 Days

Questar Productions' World Construction Set V2 has been promised for Amiga release for some time. WCS 2 would put the likes of VistaPro and Scenery Animator to shame! A prerelease version was put on the market two years ago, with a number of features missing, incomplete, or broken. Questar promised a full upgrade would be available promptly, and turned their attention to a port to other platforms (Intel and Alpha). The clock has marched forward, and a few natives have begun to get restless. A call to the Questar team cleared up a few issues.

A new version of WCS for the Amiga will be made available. The source code has apparently been mostly rewritten due to extensive changes made from the Amiga to the PC version. The eventual release of a full WCS will be essentially identical to the PC/Alpha versions and similar to the planned feature list of WCS 2. PowerPC support is planned, but may not be available immediately.

For more information, contact Questar Productions at +303-659-4028, [www.questarproductions.com](http://www.questarproductions.com) online.



## Calendar Check



**A quick look at upcoming Stateside Amiga events:**

■ **International Amiga '98** (May 30-31, Toronto, Canada) It's not too late to visit beautiful Ontario and take in a couple of days of Amiga madness, hosted by Randomize Distribution. In addition to the usual gang of American and Canadian firms, Phase5 and Oberland have been convinced to put in an appearance. (905-939-8371 or [www.randomize.com/ia98.html](http://www.randomize.com/ia98.html) for more information)

■ **AmiWest '98** (July 10-13, Sacramento, California) This show looks like it might be

a smaller event than the others in the US this year, but if you need an excuse to see California, let this be it. The show promises to be heavy on seminars and classes. (916-369-7232 fax or [www.sacc.org/amiwest/](http://www.sacc.org/amiwest/) for more information)

■ **Midwest Amiga Expo '98** (October 2-4, Columbus, Ohio) The MAE organizers may be trying to set a record for "biggest move update for an exposition over a two-year period." In '96, it was held in a suburban high school commons. This year, it will be at the downtown Hyatt. No exhibitor information yet, but last year was a good draw. [www.amicon.org/mae.html](http://www.amicon.org/mae.html) for more info.

# CD-ROM

## Super CD-ROM 23



**Welcome to CUCD23. This CD is crammed full of programs, games, utilities, mods and a host of other goodies. If you don't yet have a CD drive, this is your reason to buy one. Prices have never been lower and 650MB of quality software each month is just too good to miss out on.**

### How much of what?

It's easy to miss where the real contents of a CUCD lies so here's a list of how much data lies in each directory. Headlining the CD is Game creation (see page 18 for a walkthrough guide). Apart from that there's more than enough to keep anyone going until next month, whether its graphics, offline web browsing, music, programming or tinkering with the many utilities and tools to be found on the disc.

• Making Games.....	106MB
• CDSupport.....	68MB
• System files.....	12MB
• CDROM.....	11MB
• Demos.....	32MB
• Games.....	44MB
• Graphics.....	69MB
• Kids.....	27MB
• Magazine.....	39MB
• Online.....	56MB
• Programming.....	9MB
• Readers.....	21MB
• Sound.....	72MB
• Utilities.....	19MB
• WWW.....	32MB

## Making the most of CUCD23



All CUDs are designed to be used whether you boot from the CD or your normal Workbench. If you boot from the CD, everything is setup and ready to go. If you want to access the CD from your Workbench, you should first run InitCD. This sets up various assigns and paths needed by programs on the CD, so if you don't do it, things won't work. It doesn't make any changes to your system, or write any files to your hard drive, all changes are temporary and can be reversed by running InitCD again.

## Your own custom CD

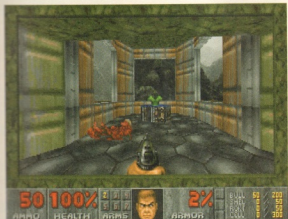
In the past you had to use whatever file viewers we set up on the CD, since these had to work with all Amigas they were quite limited. From CUCD12 we decided to allow you to specify how the CD should work on your Amiga and included CDPrefs in the CDSupport drawer. If you have never run this before you should be asked if you want to when you run InitCD. CDPrefs lets you specify which program you want to use to handle each type of file, graphics card users can view pictures in full 24 bit colour, ProjectXG users can listen to midi files through their midi card and people with sound cards can listen to mods with an AHI module player. It also means we were able to provide different defaults for Workbench 2.x users.

Once you have run CDPrefs, your setting will be saved to your hard drive and will be used every time you use this CD or any other CUCD.

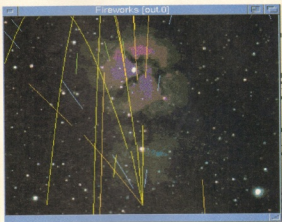
Some people had problems with the original use of `laser`, partly through a lack of understanding of how it worked and partly through a lack of explanation from us. All icons now use `CUCDFile` as their default tool, and the previous `laser` problems should be a thing of the past. `InitCD` now copies `CUCDFile` and it's configuration to your hard drive, if it's not already there. This means that files copied from the CD will now work without needing the CD present. You will almost certainly need to run `CUCDPrefs` to set it up to use your own viewers, but you should do that anyway as it will result in faster access. If you do have any problems, make sure you have run `InitCD`, at least once.



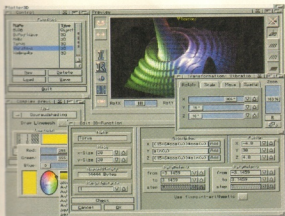
## Highlights of CU Amiga Super CD 23



▲ With ADoomPC you can blast the bad guys faster than ever



▲ Watch the eye candy as PlayMF plays your MIDI songs



▲ Plotter3D creating stunning images from a few numbers

### Games/ADoomPPC

ADoom, thought by many to be the best Doom clone, has now gone PowerPC. Until Quake is released for the PowerPC, this is probably your best chance of using the power of a PPC Amiga for gaming.

### Demos/SPO98

Spoletum 98 was a demo party for Amigas only. Here are the top finishers in each category.

### Graphics/Icons

NewIcons give Workbench the ability to display a wider range of icon colours. In the colours the creator intended. The AES icons collections of NewIcons have not been updated for a while, but

here is a new set, using the extra colours that NewIcons4 offers.

### Online/WebFX

WebFX is an add-on for ImageFX. It is designed to create images and animations suitable for use on WWW pages. It uses a straightforward drag and drop interface to create effects for images and animations, such as drop shadows on pictures, or fading one to another as a gifanim.

### Graphics/Plotter3D

Plotter3D creates graphics from mathematical functions. Imagine objects, pictures and fonts. It has interactive previews, so you can experiment with the settings and see the results immediately, rather

than having to render again after each change.

### Sound/PlayMF

PlayMF itself is a midi song player, that works well with an XG midi card as used in Project XG. It also comes with a couple of "utilities" to provide background eye candy while playing the songs.

### Utilities/URB

Ever wished your favourite program had just a couple of extra buttons for the things you do so often? URB lets you add button banks to any public screen and run Workbench programs, AmigaDOS commands or ARexx scripts from each button.

### Online/WebTutor

This is a comprehensive tutorial on producing web pages. It's best viewed with AWeb since it makes quite extensive use of JavaScript, although it is viewable in other browsers too.

### Kids

It's hard to pick out particular programs in here. There is a wide range of children's software, appropriate to all ages. Have a look and make your own mind up.



▲ Add command buttons to any screen with URB

## Making things work

Wherever possible, we have tried to make software work straight from the CD, this isn't always possible for a number of reasons. Some programs need to be installed to your hard drive to work, often requiring specific system files. These files are usually on the CD so running InitCD often helps here.

Most software contains a list of system requirements in the documentation, and some will not run unless you have the required processor, memory operating system version or chipset.

Some programs, particularly demos and games are written in an OS illegal way. This can mean they only work on specific machine specifications, sometimes the readme states this, but not always. Many demos are intended to be run from a shell, the icons we add simply start them from a script. In some cases this will not work, especially demos that need a lot of Chip RAM. In this case you will need to boot without startup-sequence and run the program from the shell. Your Workbench manual should explain how to do this.

## What's on this month's CU Amiga CD?



## ▲ Learn to create or improve your web site with WebTutor

## Creating Games:

Reality Game Engine, as supplied on the floppy disks is in here, along with a wealth of other material for creating your own games. There are several other games creators, such as Shoot Em Up Construction Kit, Backbone, Graal and updates on the main interactive fiction programs from last month's CD.

There is also a selection of tools and information for use with the established programming languages, and the complete source code to Alien Breed 3D, so you can see how a commercial game is programmed.

## CDSupport:

This contains various support files, such as mod players, anim players, GMPay, MUI, ClassAct. Most importantly, this is where the CDPrefs program lives. With this you can customise your CUCD to launch your choice of program for each type of file. Two other notable icons in here are Docs.guide, with links to all the program documentation files on the CD, and Index. Run Index, type in the name of a program, or part of it, and it will search the contents of the CD for you. You can either search the current CD or the index files of all CUCDs since

number 4. CDSupport also contains icons to start ProNET in various configurations, ready to use when linking a CDTV or CD32 to another Amiga.

## CUCD:

The CUCD drawer contains most of the CD contents, here is a selection of what each drawer holds.

## CDROM:



The CDROM section has an updated collection of CUCDs for music CDs, with the addition of a number of heavy metal CDs to the collection. Information on the latest Amineet CDs has also been added.

## Demos:



We have all the successful demos from the recent Spoleum 98 party, an Amiga-only event.

## Games:



Another collection of games and data files, including a PowerPC version of ADoom and, along with a high quality replacement set of MIDI instruments for the 68K version. ADescend, VIRGE is

the first game to utilise the 3D capabilities of the Cybervision graphics card.

## Graphics:



Viewers to handle all kinds of graphic files, including a PDF viewer, and ademo of ArtStudioPro, as reviewed in last month's CU Amiga. There's also more collections of icons and backdrops to customise your Workbench.

## Kids:

A comprehensive selection of the educational software available for the Amiga today. Paint packages, games, music and a lot more for younger Amiga users.

## Magazine:



Here are all the support files for the C Tutorial. The software reviewed in the InternetPD pages is all on here, and some programs to use AIRLink. We have mpeg audio files of Petro Tyschtschenko's recent address in Finland, including a Q&A session.

## Online:



Plenty of Internet software this month, including the latest Voyager, a new web server and WebFX for creating outstanding web page graphics. There is also a tutorial on creating web pages and the regular selection of postings to fidonet, usenet and the CU Amiga mailing list.

## Programming:



As well as the programming tools in the main feature directory, we have several new and updated debugging tools here, some more MUI classes and the latest postings from the Amos, Blitz and E mailing lists.

## Readers:



All your own work, another 20Mb+ of it. If you have created something you think is worth sharing with the rest of CU Amiga's readers, send it to us for inclusion here.

## Sound:



A real treat for mod fans with around seventy modules on this month's CD. And if you are more interested in creating mods than listening to them, we also have a collection of quality 16 bit samples. MIDI fans aren't forgotten, with MidiTracker and a midi player that also works with ProjectXG.

## Utilities:



A diverse collection of enhancements for your Amiga. If you want to add button bars to any screen, find files on your hard drive or improve your DOpus Workbench even further, there's something here for you.

## WWW:



Another selection of Amiga related web sites. Naturally this includes the celebrated CU Amiga Online. If you have a web site you think should be on a CUCD, send us an email.



## Disk doesn't load?

If your CD does not load contact DiskXpress on 01451 810788. If they advise that the CD is faulty send it along with a SAE to: CU Amiga Magazine Disk Returns, DiskXpress, 7 Willow Court, Bourton Industrial Park, Bourton on the water, Gloucestershire GL54 2HQ.

Please note that some CDs will not autoboot on systems other than CD32s, so try loading it from Workbench first. CUCDs will work with almost all Amiga configurations and filesystems. However, we recommend older CD filesystems be replaced where possible. A non-working program is not an indication of a faulty CD!



# COVER DISKS

## Reality Game Engine



**Welcome to Reality - the Ultimate Software Construction Kit. Reality is a modular game creation system. With Reality, you can take stock or custom graphics, backgrounds, sounds and music and build a game around a framework (called a "skeleton" in Reality) to create your own masterpiece.**

### Loading instructions

To install the Reality Game Creator on your hard drive from this month's cover disk, first boot up Workbench and then insert cover disk 183. Open the disk and you will see an icon called 'Drag\_Me\_To\_HD\_and\_Click'. If you do just this - drag it to the place on your hard drive where you wish it to go and double click it - Reality will be installed there. During the installation process you will be prompted to insert the other disk, cover disk number 184. The Reality system will create its own drawer.

Installation from the CD-ROM, is even easier. Just drag the RealityGameEngine to the location on your hard drive of your choice. While the system will run from the CD-ROM, you will be unable to save any changes there. To run Reality, open up the drawer named 'RealityGameEngine' and double click on the icon called 'StartREALITY'. Detailed instructions on using the system are contained these pages.

### Getting Started

**R**eality is designed to be very usable on a stock A1200 system - a hard drive is not necessary, although is highly recommended for speed and storage purposes. Some Reality support modules may experience trouble with 060 Amigas, although the main Reality editors are generally friendly to various system configurations. Reality's modules do not multitask with each other, and most do not multitask with the rest of your system, either. You can exit Reality from the main menu (by clicking the title bar) or from certain Reality modules.

This will drop you back to Workbench and restore any other parts of your system which may have been running before you launched Reality. It's always safe to quit from the main menu since you save all of your work-in-progress in the respective modules.

The best add-on for Reality will be a good paint program, such as

Personal Paint or Deluxe Paint. Reality comes with a rudimentary painter which should only be used by the extremely desperate. On one of our machines it crashed on exit - beware! To get your feet wet, we've included one Reality skeleton disk: Charlie Chimp. The authors have literally dozens of these to choose from if you find you want help branching out beyond the platform puzzler skeleton.

The skeleton disks are your key to making all your hard work in Reality pay off on the small screen.

### Understanding Reality

Virtually all of the input (aside from text messages) you provide to Reality is with the mouse. Reality's GUI should be fairly comfortable for anyone with good Amiga experience, but some conventions may take some getting used to.

As mentioned before, Reality does not multitask, so screen-flipping and window-dragging are not



▲ The Reality Background Editor



enabled. Number input is perhaps the most unusual aspect of Reality's interface. Most programs handle numeric values with either a text gadget (type the number) or a slider (drag a bar to a certain value). Reality uses buttons. Left-click on a button to increase the value (usually shown in a bar elsewhere on the screen), right-click to decrease.

## The Modules

**Graphics Toolkit:** This is the bread and butter of Reality. With this module, you prepare your sets of graphics tiles and game sprites, in Reality's custom .GRA format.

The Grabber utility imports IFF files that you've prepared in an external paint program. You should ensure that your images are all either 16 or 32 colours deep as those are the only two depths Reality wants to deal with, and is all you'll find in the skeleton software.

You can begin by loading up one of the included .GRA files to get the feel for how this module works. Hit the View Images button to scroll through a bank of graphics. This brings up a new set of controls to pan through: move to start, left, right, and end. You'll notice that all of the prepared .GRA files are tiled in the upper-left hand corner, which is how Reality optimizes graphics to save the most space. Since in the Grabber utility you may not get this precise, the Toolkit has a "scrunch" function to do it for you, either on a single picture or full bank of images. Important to remember is that tiles and sprites are treated in fundamentally different ways by Reality, despite being similar (but not identical) in their construction.

The "swap between" button allows you to switch the type of graphic you'll be working on. Similarly, when saving note the two different save buttons, for sprites and for tiles. Since they must end in .GRA you should include a textual clue as to what sort of file they are

when saving: mypics\_tiles.GRA versus mypics\_sprites.GRA, for example.

**Animation Studio:** Deliciously self-explanatory. The companion piece to the Graphics Toolkit. Here, you load in sprite .GRA data as created in the Toolkit, and see how it will look once you animate—a walking Charlie Chimp, in the example you'll find with this issue. The "hot spot" function allows you to create animations using frames which are not of uniform height, and a walking chimp qualifies, since he tends to bounce as he travels. By pulling up the Animation sub-menu, you can build an animation which runs on the screen while you work. Using "add image", you tell the system the sequence of frames you want to see flipped through. With the Chimp example, use Add Image to build the 6 frame animation of our hero

### ▼ Charlie Chimp in Action



walking to the side of the screen.

The speed button is one of those mouse button number inputs—the lower the number, the faster the animation. In this sub-menu, you check the progress of your graphical creation, as well as defining the hot spots to ensure the motion is smooth once you unleash the game on the world.

**Sound Studio:** Something of a misnomer, since you can't really create anything. Rather, this is where

you preview sound samples (and set their speed) and music modules. These are both in custom formats as provided by Reality's creators. We've got four sample packs and thirteen tunes which should keep you busy.

Checking the music is as simple as loading the tune in "load music" and hitting "music on." It will

play until you hit the button again, or play a sound sample.

Using the left/right mouse button trick on the Sample Number button picks which clip you want to hear, and the "Sam speed 1" and "100" alter the frequency by those units. The save functions are really provided so you can place copies of these files on other locations on your hard drive without having to leave Reality proper.

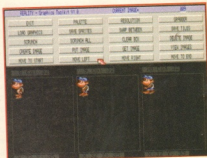
**Picture Converter:** This section of Reality lets you incorporate regular IFF files into your Reality games for use as title cards: intros, finales, that sort of thing. It really serves as a very basic image manipulator: you

can save the image in a custom compressed ".PIC" format, alter the colour depth, and change the width and height in this module. Beware! This is not for scaling or any sort of intelligent colour interpolation. All you're doing is slicing the palette and reducing the visible area of the picture, respectively. If you need more complex work done you'll need to look to a

program like ImageStudio or ImageFX. All this module will do is let you match depth to Reality's demands and let you tinker with the visible size of an image to give it the proper appearance.

**Introduction Creator:** You have to welcome your players to your game, and this is how you do it. This saves off intro data onto your skeleton disk. The main element is an IFF picture, which you load in with the Load Picture command.

Tack on a Reality music file, and, if you wish, add a text message with Edit Text. A few words about the interesting mouse/keyboard combination of the scroll editor: it's actually faster to use the mouse than the arrow keys to scroll through the text, but I strongly encourage you type your message. The "newline" or "¶" breaks are used for some of the text display methods to indicate when they should drop down to a new line. The "text display" gives the Y-coordinate the text should start appearing on (some displays take up more space



▲ The Graphics Toolkit

than others you may need to experiment with your image before you can settle on a display).

**Slideshow Creator:** Used to create an in-game slideshow — good for advancing the plot, rewarding the player for a job well done with some eye candy, that sort of thing. If you're far enough along with Reality that you're dealing with the Slideshow Creator it will be no problem for you, but a brief summary never hurts: You can prepare your slideshow with a tune at any time with the Load Music button. To set up the rest of the show, load each individual frame with the Load Picture button: IFF or PIC files. The screen will track how many slides are in your show in the "Picture No." indicator. Each picture can have its own Appear and Disappear effect, along with a delay time — the higher the number, the longer it's on the screen, with the exception of "0" which requires that the player hit the mouse or joystick

**The Appear, Disappear, and Text Effect/Method buttons customize the intro with a series of special effects.**

### Appear Effects:

- 0: Fade Up 1: Up/Down Staggered
- 2: Left/Right Staggered
- 3: Full Up/Down slide 4: Left slide
- 5: Right slide 6: Interface 7: Left/Right paint-on 8: Pour-on

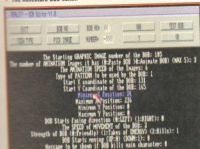
### Disappear Effects:

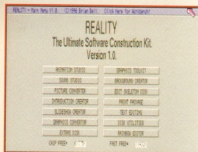
- 0: Fade Down 1: Break from Center 2: Swirl from Center 3: Swirl from Top-left 4: Left/right Swirl 5: (another) Swirl 6: Shrinking Box 7: Growing Box 8: (yet another) Swirl

### Text Effects:

- 0: None (no text) 1: Plain scroll 2: Stretch scroll 3: Cylinder scroll 4: Stretch from center

### ▼ The Adventure BBS editor



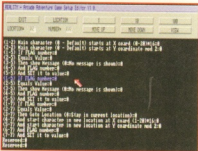


▲ The Reality main menu

button before the show will go on.

The Loop trigger determines whether the game will continue after the slideshow or simply start again (good for previewing and promoting your game). When you're done, "Save Details" will record the slideshow script for later use in the game building process.

**Graphics Converter:** Basically, a module to allow you to export pictures in the Reality .GRA format to an IFF file for treatment in an exter-



▲ The Adventure Game Setup Editor

nal program. The only real trick here is that you should avoid using colour 1 for anything in the paint program as Reality reserves that colour for its own devices.

**Background Creator (Map Editor):** Once you get serious about game creation, you'll spend a lot of time in

▼ The Adventure Skeleton main menu



the Map Editor. This is where you create your playfield, using tiles to create a larger picture. Super Mario (or Giana Sisters, if you prefer) is the best example of a tile-based map game – you can visualize how the levels are built out of a relatively small number of repeated graphics.

Reality uses these tiles to create large maps which you can scroll across or use in frame-by-frame fashion (like a level) as your playground. The best way to learn this editor is by loading in an included set of tiles and the corresponding map. You can scroll across using the arrows on the upper right side of the control box.

To see clearly how the tiles work, turn on the grid under the Options submenu. The Map editor works very much like a paint program, except you paint with a large tile

brush in a grid. You can scroll through your "palette" of tiles using the arrows near the double row of tiles. The right mouse button acts as a single level undo when drawing. Practice will make perfect and you'll be a master in no time. The one other major detail to note is the "Values" menu. This allows you to give an attribute to a particular type of

tile, to mark it as a background, a platform, a door, a deadly surface, etc. The game creation phase actually defines what a value of 50 means as opposed to a value of 10, but it is in the map editor where you give the tiles their designation.

## Making your own Reality Edit Skeleton Disk:

Here is where all of the pieces of Reality come together. By using a Skeleton Disk, you can build your own game. The Charlie Chimp game is one of the skeletons provided and may be used as the basis for your own arcade adventure

game, but the people at BPM make a number of different launchpad games if you want to play in another genre. Each Skeleton has different characteristics, so if you start branching out you'll have to learn some new techniques.

When you select Edit Skeleton Disk from the main Reality Menu it then asks you if you wish to access the Skeleton Disk from the hard drive. Click Yes here. It then prompts you to select a Skeleton Disk. Choose number two for the arcade adventure skeleton and click OK.

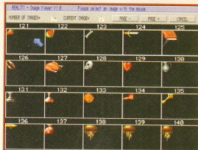
## The Adventure Skeleton

You are presented with the following option

**Load Reality:** Returns to the Reality main menu.

**Test:** For play-testing your game. This is a good way to play through Charlie Chimp to get a feel for what the game looks like before you start dissecting it, as well as a way to get reasonably quick verification that your changes work (or don't). Note that you don't see any intro you may have created, only the game itself.

**Edit Stats:** Here you set the global characteristic for the game, such as the number of lives for the player, the players animation sequences, and the positions of text messages on the screen. The interface is quite odd, and there's no cancel button, so be very careful before you start messing with it. Here's how to make changes. Look at, but don't click on, the list on the screen. There are various game attributes, followed by their numerical settings. Use the number increment buttons with your left and right mouse buttons to set the number that you want to change one of those attributes to. This is a little uncom-



▲ Choose an object for your adventure

fortable but if you're careful you will get the hang of the system.

**Messages:** You'll want to communicate with your players, and this is where that takes place. Messages are identified by number and the Message Editor lets you choose which message you want to Edit or View. The Edit Message function is very straightforward with the same on-screen keyboard used in the main Reality program. View mes-

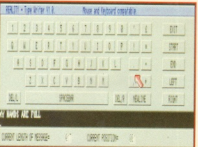


▲ Charlie Chimp picking up an object

sage allows you to display the message as it will be seen in the final game. Exit takes you back to the main Adventure menu.

**Objects:** Hammers, daggers, potions, powerups. They're all objects, and they need your help before they can be real. The Object

▼ The Adventure Message Editor





▲ The Charlie Chimp intro screen

Editor is where you create them. You set an object's characteristics - what it does to the player, his score, his money, as well as what the object looks like and where it may be found in the game. Take a look through the objects in Charlie Chimp and note how they mete out reward and punishment.

The Object Editor allows you to define up to 100 objects. You may select the number of the object you wish to modify in the usual fashion. The number on the screen below the object number may be applied to the list of object attributes shown by clicking. The number may be altered first by clicking on the 1 or 100 gadget in the usual way.

You may assign each object an image by selecting a number and applying it to the graphics image attribute or, alternatively, by selecting the Pick Image gadget. This allows you to view your previously defined graphics and select an object's image visually.

The Edit Name gadget is for giving each of your object's a textual name and works similarly to the Message Editor above. An object may be located in the game, either by applying numbers to the location and coordinate attributes or by selecting the View+Set gadget. This displays the graphics of a particular room and you can position an object within the room with the mouse.

**Room Names:** fairly minimal module, used to create room descriptions for in game use. Scroll through the room numbers with the button, enter the name and you're done.

**Define Zones:** Zones are places where special things happen in the rooms of your game. They are used to track the position of the player

and, in conjunction with Game Setup options, allow the creation of the puzzles. For example, to create a locked door in your game, you could define a zone the size of the door and by use of the Game Setup options, not permit the player to enter that zone unless the key is dropped in an adjacent zone.

Before you actually create a zone, you must select the room in which the zone is to be located and the zone number you wish to define. There may be four zones for each room. You define a zone by left-clicking on the upper left hand corner of the area you want to define and right-clicking on the lower right hand corner. (Beware! A zone must be at least one pixel thick - don't left-click on the very bottom of the screen or you'll be sorry.)

**BOB Setup:** BOBs are special objects or characters in your game. A typical use for BOBs is for creating enemies which attack your player, but other uses include animated and static backdrops. BOBs are not restricted to location grids like normal objects are and may have normal movement sequences & animation.

The BOB editor works much like the objects editor. You make pick a BOB number, apply a number to a particular BOB attribute and select the BOB's graphic image in a similar way. The View Type gadget may be selected after choosing a number and lets you view an example of each type of BOB.

For example, type 0 is a static animated BOB, while a type 1 BOB moves horizontally and is animated. The Test Bob gadget allows you to pick a room in your game and view the graphics and animations of all the BOBs, etc.

**Game Setup:** This is where it all comes together for your game. It allows you to design and specify how all puzzles, objects, zones and other features interact with your player. When you click on the Game Setup gadget you are presented with a list of attributes for a particular location.

This list may be scrolled up and down using the move up and move down buttons. These attributes effect a set of conditions and tests for that location. The first 55 attributes are used when the player first enters a location - for example, the first two specify the start location for the player in that location. The Next 10 allow you to specify which Zones the player can enter and which he cannot. The next 105 are used for when the fire button is pressed while the player is standing in Zone 1, the following 105 for when the button is pressed in Zone 2, etc.

One concept that you will need to get to grips with is Flags. Flags are used similar to the way variables are used in usual programming languages. There are 256 flags, each of which may have a value between 0 and 255. Before any process is carried out in the game that requires certain conditions to be met, the computer

will check the value of certain Flags to see if they are set to a particular value. For example, the sequence

IF FLAG number=5 Equals Value=0 Then SHOW message=19 And FLAG number=5 And SET it to value=60 will check to see if FLAG number 5 is equal to 0 and, if it is, message number 19 will be displayed. Then it will set the FLAG number 5 to the value 60. (There are a few special Flags. Flag 0 is reserved and Flag 1, when set to 255, tells the system that the game has been completed.) The best way to learn how this system works is to experiment with the game supplied. Try changing certain flags, etc. to see what results you get.

## Conclusion

Reality is willing to do much of the grunt work in game creation. You don't need to be a skilled programmer, and the included music, sound effects, and graphics mean you don't have to be an artist, either.

All you need is a little creativity and hard work, and you and Reality will be turning out the kind of games you want to play! ■

Richard Drummond/Jason Compton

## Amiga Repairs

- 95% success rate on all computers
- Door to door collection of your computer anywhere in the UK



**AMIGA  
4000  
SPECIALISTS**

**FAST COMPUTERS**

144 Tonner Street  
Tower Bridge,  
London, SE1 2HG  
Tel: 0171 252 3553

## FAULTY TROUBLESOME COMPUTER??

CALL FOR COLLECTION OR PERSONALLY DELIVER TO THE EXPERTS FOR FAST RELIABLE REPAIR OF YOUR AMIGA  
NO OBLIGATION FREE QUOTE

£24.99  
PLUS PARTS

## WE REPAIR TO COMPONENT LEVEL

A500, A600, 1200, 1500, 2000, 3000, 4000 & CD32

**FREE GIFT WITH EVERY REPAIR!! PLEASE SPECIFY**

**MOUSE MAT..MOUSE HOLDER..  
DISK CLEANING KIT..ADD £10 REPLACE MOUSE**

**BARGAIN HARD DRIVES**







# GAME CR

EVER WANTED TO MAKE YOUR OWN VIDEO GAMES? NOW'S AS GOOD A TIME AS ANY TO MAKE A START, WITH SOFTWARE ON THE COVERDISKS AND AND OUR VIRTUALLY COMPLETE GUIDE...

**T**here's a lot to be said for the idea of making your own computer games. It's one of the most all-round challenging, creative and satisfying things you can do with a computer, and in the Amiga you have an ideal development system. For some people, creating games is far more enjoyable than playing them. For others it's a double-headed coin. Not only do you get to work on the concept, design, graphics and soundtrack, but you get your own personally crafted game to play at the end of it. This month's cover disks contain the Reality game creator and there's even more on the CD, including Shoot 'em Up Construction Kit and some more advanced development tools. That's a lot is enough to give anyone an initial leg up into the world of video game creation. Over the next few pages we'll be discussing the various aspects of game design, with help and advice from the professionals, to form a solid base from which you can launch your ambitions.

## WHERE TO START?

If you've never designed or written a game before, don't expect to be able to take over the world with your first attempt. Don't kid yourself that the game-playing public are going to be thrilled with your earliest productions if they're based on concepts that have been kicking around monitor screens for the past couple of decades. Even so, sometimes the best place to start is just there: at the start. If you can knock up a half decent Space Invaders or Pac Man, even if it's not for public consumption, at least you'll have given yourself a basic grounding in the fundamentals (how to move sprites, collision detection, point scoring, character animation etc).

We'll cover the sticky subject of programming a little later on, but even if in the long run you don't intend to get your hands dirty with the programming side of things, it wouldn't hurt to have a tinker with a high level language (such as Blitz Basic) or at least a game creator in order to get your head around the kind of logic involved in the process.

# EVOLUTION

## THE IDEA

Assuming we are setting our sights above clones of ancient coin-ops, let's see what we're letting ourselves in for. First of all, we must have an idea. That idea could be to rip off a game from another platform, but that's going to bypass most of the fun of game design and creation, so we'll assume this idea is for a new game concept. Good ideas are obviously better than bad ones, but how do you come up with them, and then what do you do with them? Over to Sensible Software's Jon Hare:

"The process of coming up with game ideas is really pretty straightforward, you just learn to keep hold of the good ideas that filter through your mind and then build on them. Many people have good ideas but they are either bad at:

a) recognising a good idea from a bad one, normally because they are more focussed on their involvement in the idea and are therefore either too protective or too dismissive of it because it is theirs, rather than concentrating on the main issue which is, is it a good idea or a crap idea. Objectivity is the key to producing a good product. There is no room for personal ego problems in good design. Or...

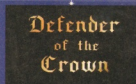
b) working that idea and seeing it through, being comfortable with manipulating it, trimming it, reinventing bits of it, binning things that don't work.

"The key is that with experience you learn instinctively to quickly dismiss bad ideas and develop good ones. However, you can only control the thoughts in your own head and working in larger and larger teams introduces a whole new problem of idea communication, and the fact that your visualisation of an idea on paper may be very different to mine. These problems need a whole new set of skills to be coped with properly.

"Generally the rule for good design is to consider everything, but to be very selective at what you actually go for and to always carry the bigger picture of the whole game in your mind at all times. Consider this during every decision you make, no matter how small, regarding all aspects of the game's creation."

## EVOLUTIONARY NOTES

You could spend your days building the 1,000th Bomberman clone, or you could hijack the course of video gaming history - it's your choice. To help you out on the inspiration front, here are ten games that skewed the evolutionary path off at a tangent for one reason or another. Some marked the start of completely new genres, while others took an existing concept and put a radical new spin on it. We've deliberately left out the late 70s and early 80s coin-ops that spawned the whole idea of video games (eg. Space Invaders, Scramble, Pac Man etc), so don't write in! No doubt you'll have your own favourites to add to the list as well.



### DEFENDER OF THE CROWN

Cinemaware exploited the Amiga's revolutionary graphics potential, bringing us the first ever "interactive movie".



### POPULOUS

Another genre-defining moment came with Bullfrog's invention of the God simulator.



### WOLFENSTEIN 3D

The forerunner to Doom and Quake started the 90s 3D gaming revolution.

## LEADERBOARD

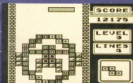
Solid 3D graphics, a control method pinched by every subsequent golf game, and motion capture too!

## FOOTBALL MANAGER

The name says it all. The curly-topped Kevin Toms should be a millionaire now (but probably isn't).

## KICK OFF

Previously balls were stuck firmly to feet and pitches viewed strictly from the side (apart from Tecmo's World Cup coin-op).



## TETRIS

From Russia with squares, Tetris proved dull-looking puzzle games could conquer the world.



## VIRTUA FIGHTER

The first example of the inevitable 3D adaptation of the Street Fighter theme.



## MANIAC MANSION

Lucasfilm Games defined the format for graphic adventures for the next ten years.

## MERCENARY

From the mind of Paul Woakes, this was the original virtual reality adventure.

# DESIGN GUIDELINES

## SO YOU'VE GOT AN IDEA FOR A GAME AND YOU THINK IT'S A WINNER. WHERE DO YOU GO FROM HERE?

Assuming you have the technicalities of the game 'engine' in hand (options are discussed on page 29) it's time to go about building your game. If you are working in a team it's essential that you, or someone you nomi-

nate, takes control of the project. Give yourself or this nominee the title Project Manager and everyone will know who to take orders from. As the Project Manager it will be your responsibility to communicate the original concept to the team so that everyone understands it completely. It's no use having a team of people pulling in different



directions – that's not a team at all, just a group of people working on a common project. Strange as it may seem, even if you are working on the game alone, it's still worth doing this anyway so that you can keep track of your original vision.

One of the first things you could do as Project Manager would be to provide some reference material for the various members of the team. That would often take the form of sketches or even full blown sto-

boards to show how the game should look. You could blather on about the plot and characters till the cows come home, but if the team is unsure of whether it's a top-down war game, a 3D Quaker, a scrilly

game (just look at Tetris for example). It's at this stage that you should be checking out the 'feel' of the game. Is it really as much fun as you thought it would be? If you can enjoy messing around with a very basic engine and hardly any objects/locations/allies/whatever, then it's a good sign that you've got yourself the makings of a good game.

This is especially the case if you are designing some kind of sports game, in which the fun will be determined almost entirely by the direct satisfaction gleaned from controlling the player's characters (as opposed to being able to fall back on the lure of new levels, new enemies and so on as in an arcade or adventure game).

### GENERAL ADVICE

It's no good saying things like "In a good game, player will never be granted more than five lives" or "A game must contain humour in order to be fun". That kind of thinking will only box you in. The best games come about from the designers having that instinctive understanding of what will make their particular game better than the rest.

Even so, it won't do any harm to give some thought to how games currently manage to entertain, and how others fail. By way of some food for thought, here are some extracts from a paper written by Steve Hammond to remind the development team at Devils Thumb Entertainment what they should be aiming for when designing levels for a game called *Winter's Fury*, a strategy-adventure RPG type thing inspired by *Hired Guns*.

"The Ultimate Irrevocable Law of Game Design That Cannot be Transgressed Ever: Never ever overfrustrate the player."

You see, there's a law and already it begs to be differed with. Personally, I hate to be frustrated by computer games, but many times I've reviewed a game and marked it down for being too frustrating, i.e. not fair as opposed to too difficult, only to hear from players that it's the teeth-grashing and hair-

### FIRST STEPS

Before you dive headlong into the project, throwing resources and big ideas around with gay abandon, you should first find out whether you really are onto a winner or not. Imagine you spent two months formulating an incredibly clever web of characters, events and locations, only to find that your actual game was as much fun to play as sub-aqua nudist leapfrog. Actually, I, that doesn't sound too bad...

The point is that you should get a rudimentary version of your game up and running as soon as possible. Some simple graphics and just one level or a handful of locations should be enough to give you a rough idea of whether you can pull it off or not. Sometimes that's as far as you need to

### DON'T BE AFRAID



Don't be afraid or ashamed to admit that an idea turned out not to be as good as you thought. It's always easier to start from scratch when you're at the beginning of a project. Once you've invested substantial time and energy into a project you're going to be less open to the idea of scrapping it, even though that might be the best option.







pulling inducements that they crave. On with the pearls of wisdom Mr Hammond...

"Mazes are fun to design. That doesn't necessarily mean that they're fun to play unless they're small and manageable. They are perhaps good for setting challenges for your friends, but a player coming into the game cold has one main aim and that is to get to the finish point and see as much that is new and fun along the way. Mazes will hold him back. Where a maze will work is if it is small enough to, for example, cause a momentary disorientation when getting chased by monsters.

"The difference is taking a few seconds to get your bearings and spending ten minutes working out just where the hell you are. It might be argued that a game level is effectively one big maze, but the difference is that a real maze has no markers to distinguish one part of it from another. This means that if the player spends ten minutes in a maze, he is spending ten minutes looking at the same stuff. We might be so damn excited about the neat stuff we've designed further on in the game, but the player won't be seeing it for some time yet. And if he gives up then he'll never see it."

Quite right, and it's also worth considering the opposite of that situation...

"There will be many marvels in the game as a whole. It's tempting to show the player all the neat stuff as soon as possible, but that'll leave nothing for later levels. Spread all the different things out evenly. It's better to have one cool thing in a level and a different cool thing in another, than to have both in the one level and nothing interesting in the next."

"We maintain a level of interest by constantly varying what the player sees as he progresses. Different textures are the obvious way to alter the environment, but it should also include varying the geometry of the level, different corridor shapes, cylinder shaped rooms and so on. Think of a car journey across the country. It feels good as you see the landscape slowly change, as the flatlands give way to mountains which give way to plains and eventually the open sea. It's an achievement and a reward. The player looks at where he is and says 'Wow! Look how far I got!'

## THE LOGICAL CAPTAIN

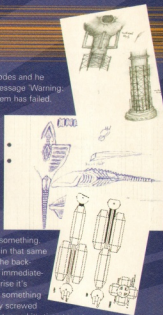
Unless you want to make a game in which things happen for no obvious reason, you should make sure that a game that has

adventure, exploration or puzzle elements is logical.

"When the player triggers off something, say by hitting a switch, the result should not be so hidden that the player spends ages trying to find it. Pressing a switch here which opens a doorway on the opposite side of the level is not intuitive at all. In Duke Nukem there was a rather neat way around this. When a switch really did open a door miles away, you could see it opening on a nearby monitor. This leads us to the point: there should always be a connection between what the player does and the results of the action. The player should be able to turn around and see the result, or hear something taking place just to the side. At the very least there should be some kind of clue as to what he has just done. Some indication that the state of something has changed.

"Think a little more laterally than Press Button, Open Door. Say for example we have a nuclear reactor. Shooting a pipe which explodes may not have any obvious connection with being able to enter into the reactor core itself, right? But if the player shoots the

pipe, it explodes and he hears the message 'Warning: coolant system has failed. Reactor core has been breached' then he'll know that he can now do something with the core. It has changed the state of something. More subtly in that same example, if the background hum immediately started to rise it's obvious that something is completely screwed with the reactor and it's time to get the hell out of there. Otherwise the player has to learn the painful lesson that if he shoots this, then a minute later he's dead. No indication, no warning, big frustration."



## THE DESIGN PROCESS

There's no right or wrong way to go about taking your game idea through the design process, but it pays to take a leaf out of the book of some of the more experienced people in the business. We asked Bitmap Brother Simon Knight about the main stages involved in turning an original idea into a full blown game...

1. We first prototype the game idea by creating a one level playable demo, either using existing graphics or by creating the minimum required making it multi-player (two player in the case of the Amiga).

2. Having established that it was as good an idea that we thought it was, a programmer creates a level editor building on the rudimentary systems created above.

3. The designer completes the design based on what was learnt from the demo.

4. According to the design, the artists do all the graphics, the musicians do all the SFX and music, and the programmers create all the routines. The artificial intelligence is largely based on what we discovered by playing the game in the demo attempting to make the computer emulate a human player.

5. The level designers design and implement the levels of the game in a basic graphical form to allow easy changes.

The processes involved in stages four and five are done in an order dictated by the game's designer so that real levels can be built as soon as possible. Thus you start learning about all the flaws in your design as soon as possible and can amend things accordingly.

Typically we create the first level (not necessarily the first level in the game) way, way before any of these stages are anywhere near complete, so all stages are evolving (and hopefully improving) as the game is being worked on.

The existing levels are played over and over again, and early levels are revised to include new ideas. Any that are deemed to be 'finished' are gone over by an artist to make them suitable for release (we call this 'window dressing').

An alpha version of the game is tested internally and externally whilst we play and play the game looking for ways to 'tweak' and improve it, mostly for difficulty.

A beta version is tested and tested for bugs. It's released and we go down the pub!!

# THE LOOK & SOUND

THE LOOK &amp; SOUND

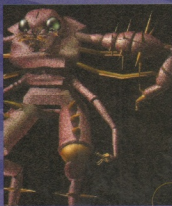
**THE WAY YOUR GAME LOOKS AND SOUNDS IS A VITAL PART OF THE MIX. BUT WHAT SHOULD IT LOOK LIKE, AND HOW SHOULD IT SOUND?**

It's important that your game has a defined visual style. It's this, alongside the soundtrack, that will give it its character and atmosphere. Atmosphere doesn't have to mean spooky, moody or scary. It could be surreal (remember *Weird Dreams*?), cute, stark, cubist... You should decide on the look as soon as possible. In fact, you shouldn't really need to think of coming up with a visual style as a separate task—the original concept will generally suggest or even dictate this for you.

It pays to look outside the computer gaming arena for inspiration. Movies, both contemporary and oldies, can be a good source. Then there's the work of specific artists, again both contemporary and classic—from Anthony Gormley to Michaelangelo.

Taking a step back from the computer game whirlpool (OK, so it's more of a paddling pool as far as the Amiga is concerned at the moment) you should be able to see a number of conventions that have recently arisen. For example, it seems to be mandatory that every game released on CD comes with a 3D rendered intro sequence. Sure, these are nice and serve a purpose, but wouldn't it make a refreshing change to see a different style of intro sequence? OnEscapee bucks the trend with its "hand drawn" intro. Not only does it look different and all the more interesting for it, but it fits well with the game's overall style.

Wouldn't it be nice to see a game intro in the style of this month's cover artwork? The artist responsible for the cover image and the backgrounds used in this feature is Rian Hughes. His is a style, for example, which could be applied not only to an intro



sequence but also an entire game, whether flat 2D or real 3D. That's just one example. Challenging conventions is one way to make your mark. Banging out a game that looks (and plays) just like a thousand others won't get you far. For an example of a game that seamlessly combined a stunning visual style with its soundtrack, look no further than *Captain Blood*. Which brings us neatly to...

## SOUNDTRACKING

Don't forget to get the soundtrack sorted out—a good one can put the icing on the cake. Who could forget the magical sounds created by Rob Hubbard in his C64 heyday? One highlight was the music for *Delta*—the shimmering synth sounds evolved, peaked and dipped as the player progressed through the

pace accordingly, reverting back to a more restrained subconscious level once the effect of the pill had worn off. Likewise, sometimes it's a good idea to link specific pieces of music to certain locations.

But what of the technicalities? If your game is to be released on CD, then you have the option of using CD audio tracks. This gives you the freedom to compose and record your music with whatever equipment you can lay your hands on. That could include full vocals, live instruments and all sorts of studio gadgetry. The most common method with Amiga games is to write the music with a tracker, which can then be played by a routine within the game code. Quake has the option of replaying its audio via AHI for full 16-bit output through a sound card, although this method can make heavy demands on the CPU. Whilst not strictly Amiga relevant, Simon Knight of the Bitmaps had this to say:

"The stuff we are currently doing is stored and played on the PC in our own proprietary formats. However, it is originated on the Mac in standard SD2 and AIF files. We don't use CD audio as it cannot be controlled sufficiently, though all our new stuff is in 22kHz 16-bit stereo."



The trademark Sensible Software look evolved "by accident, although the 'if it ain't broke don't fix it' mentality does tend to creep in after a while".



slick scrolling levels. As with the visuals, it's worth studying the movies for tips on how to use sound effects and music to create the required mood. For example, if your game included a feature where the player gained superhuman strength for a short time by picking up a power pill, the music could change

# TOOLS OF THE TRADE

**YOU'VE GOT THE IDEAS, GRAPHICS AND SOUNDTRACK...  
SOONER OR LATER YOU'LL HAVE TO PUT IT ALL TOGETHER.**

When it comes to creating your game engine, there are a number of ways you can approach it. You'll find the Reality game creator on this month's cover disks, and on the CD there's that along with a whole load of other game development tools, including Shoot 'em Up Construction Kit, Blitz Basic tools, map editors and more advanced programming bits and bobs. If the idea of programming in raw assembler makes you shudder, the likes of Reality are well worth a try. Conversely, the inevitable restrictions imposed by systems that do all the hard work for you might not allow you the freedom to realise your game plan. Fortunately there are a number of feasible options between the two poles.

## REALITY

This offers one of the quickest and easiest ways of creating a game. In effect you reverse engineer one of a range of pre-programmed games, changing as much or as little of it as you see fit in order to make something new. You will need to understand some basic concepts about variables in order to keep track of players lives, objects, levels, sprite patterns and so on, but this is about as easy as it gets.

## SEUCK

Shoot 'em up Construction Kit works along similar principles to Reality, except that by definition it's limited to making shoot 'em ups. You can make either vertically scrolling or static screen games which can have a simultaneous two-player mode. Examples of games you could write with SEUCK include Commando, Robotron and Xenious. It's a bit easier to use than Reality, but has similarly disappointing technical qualities (jerky scrolling etc).

## BACKBONE

Also on the CD this month, Backbone fits in somewhere between the previous two. It's best for creating scrolling arcade games, shoot 'em ups and platform games. It has a more friendly interface than Reality, but once again the results can be disappointingly plain. It's quite capable of making little games to be played among your friends.

## AMOS

And so to the programming languages. AMOS is one of the most popular for beginners due to a couple of factors. It's easy to

learn, with its roots in BASIC. Secondly it comes with its own routines for handling sprites, scrolling screens, accessing disks, playing music and so on. However, AMOS does have many 'quirks', such as its dislike of the Amiga's operating system (which AMOS throws out with the bathwater the moment it's started). The Valhalla series is the most well known product of AMOS. Reality is written in AMOS too.

## BLITZ BASIC

Now we're starting to get somewhere. Blitz Basic is very similar in theory to AMOS, but in practice is a whole lot better. As with AMOS, it's a kind of extended BASIC with specialist commands for handling graphics and sound. The best example of a Blitz Basic game is Skidmarks, proving that commercial quality games are possible.



## INFORM & TADS

You could choose to write adventure games instead. Last month we covered the recent developments in the area of multi-platform 'interactive fiction'. For convenience we've repeated the Inform and TADS text adventure game creator systems on this month's CD. These allow you to write your own interactive fiction adventures from scratch, but within an existing framework which takes care of movement around your world, and most importantly, handles all the 'parsing' of the player's text input.

**C** This is where it gets serious. C isn't the ideal language if speed is a major factor in your game (ie. fast scrolling, 3D texture mapping etc) but it is the most sensible all rounder. C is also a very portable language, so a game 'engine' written in C for a 680x0 Amiga will be portable to PowerPC with a few adjust-

ments and a recompile. C (when compiled for a 680x0 Amiga) is a good choice for strategy and adventure games. Looking to the future, C is the way to go for anyone serious about programming games. The Storm C compiler and the all-important Amiga 'includes' were given away free with the August 1997 issue of CU Amiga.

## AMIGA E

It's debatable whether it's worth investing time learning this fairly fast and versatile language, not because it's no good, but because it's slipping out into the realms of obscurity right now. Learning a programming language is no small task, so you'll probably not want to go through the process again in a year or two's time, which unfortunately means this C-like language won't be at the top of your list. Amiga E was given away free, with a guide book, on the December 1995 issue of CU Amiga.

## ASSEMBLY

This is the closest you can get to talking your computer's language. Probably the only reason you would want to program assembly is speed. When ClickBOOM converted Quake from the PC original, they took the C source code and re-wrote all the time critical routines in assembly to maximise the frame update rate. The PC version was all written in C.

## MY HEAD HURTS!

If you're not an expert programmer doesn't mean you have nothing to offer the world of video games. Let the programmer do the programming while you get on with the design/graphics/music/whatever. And don't forget that you'll find some additional tools and packages on this month's CD.



FREE 132 PAGE AMIGA E GUIDE



# STATE OF THE ART

PLAYTESTING &amp; NETWORK

COMPUTER GAME DEVELOPMENT IS A FAST MOVING BEAST AND PAYS TO KEEP AN EYE ON CURRENT AND FUTURE TRENDS...

I remember when all this was fields. Game development isn't the same as it was a few years ago. Things have changed since the one-man-band programmer doubled up as designer, artist and musician. While at the moment the Amiga games scene is has many parallels with the mid 80s, this is

because it's not a mainstream thing, but we hope that will soon change. These days, although a few still survive, it's just not practical for most professionals to work that way. This is partly due to what is demanded by the game publishers, who ultimately have the final say. The Sensible Software style is at odds with the current trend for 3D graphics. How have they adapted?

Jon Hare: "It's not as much fun as it used to be, is a very true statement. In the C64 days me and Chris [Yates] could have a laugh and get on with writing each game in less than a year and effectively it was like being in an indie band for an indie label. Our overheads were low, and the product was everything. Now we employ about 20 people, we have to be legally aware, we are working with big corporations, we are working on an unstable ever changing platform, our overheads are hideous and everything we buy loses value very quickly. Games standardly take a multi-

ple of years to finish.

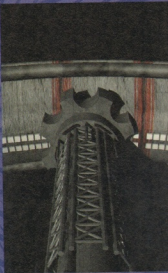
"We have suffered more than most in the last few years firstly because we were so dominant on the Amiga that we had the most to lose, secondly because we are not particularly corporate. We are a difficult company for corporations to get their heads round. Thirdly because loads of people working in this industry don't know who we are just because the Amiga and C64 are history (not that I'm bitter or anything).

"Three years ago we were offered four times as much money to develop a new PC game instead of another Amiga game - the Amiga market was closing up before our very eyes. Just yesterday someone for a top publisher asked me why we decided to work on animation and 3D like we have in the past three years. It made me want to cry; the reason we took the fancy graphics route is because the market forced us to, because three years ago it's what people wanted and unfortunately good original games do take a long time to make. The fact that the market now wants us to do what we were doing three years ago doesn't help us at all, because

a) we are still finishing off the games I wanted three years ago and  
b) in two years time when any new game we might start now would be finished it will probably have changed its mind again."

The Bitmap Brothers have also witnessed the change, the main differences being:

"More people, bigger games! As we learn more, we can do more so the games



become more sophisticated. Particularly with CD-ROM the size of games increased; you can include more levels, more graphics, more sound and start doing really clever things with it. With 3D some of the time taken to create, and especially revise, in game graphics may have decreased but cut scenes appeared and these can take a long time.

"Also the industry has changed a lot

## PLAYTESTING

Playtesting is an essential part of a game's development. Its purpose is generally two-fold: to locate bugs and make sure the game is as playable as possible. As with beta testing of productivity software, it pays to have a few people testing your game at once. Different people will find different flaws. John Hare:

"Basically the playtesting we do is different to the role that the playtesting departments of publishers provide. As I am generally the person coming up with the game design specifications, it is generally up to me to make sure that these have been carried out properly and also to actually work out whether my initial idea was that good in the first place or whether it needs binning or tweaking. So I test/play the game to make sure it is as good as it can be and other people test it in house to feed back opinions on how they feel about it. It is also a useful way of creating a To Do list for the game. We do try to avoid the bug testing and translation string testing in house as much as we possibly can, as this is not really part of the creative process and therefore is best done by the testers working for our publisher."



around us, with games becoming much more mass market. There are now some really big players who take life (and especially money) considerably more seriously than in the old days."

### TEAMWORK

While working in teams is a solution to getting your game developed on time and to high standards, it also throws up new problems. Relinquishing direct control of certain areas, the team leader may need to take on less stimulating jobs. Jon once again:

"Chris is not so involved in the day to day running now although he is still running the Network and is still a Joint Director with me. I spend my time either doing

### FOOT IN THE DOOR

So far this has assumed that you are ready and willing to take on the mantle of Project Manager - The Boss. Maybe you're not cut out for that. Maybe you just want a quiet life, coding/designing/composing/doodling away to someone else's brief. There's nothing wrong with that. If, for example, you are a genuinely good programmer, your skills are in demand. Jon:

"Good programmers have always been hard to find. There are a lot of bullshitters out there. Too many programmers are demo writers with illusions of grandeur, or people

a team and lots of other things, but most of all it is about seeing the big picture regarding the product. That is

one of the main differences between a good and a bad programmer (I think)."

As for how to get into an established development team, Jon has a few pointers:

"You are better off getting a cracking demo together and going to an established team and having realistic expectations.

Nothing happens overnight in software, but good talented, pleasant, hardworking, committed people are always valued in development teams. The market is not in a good state to set up on your own at the moment. Development costs are too expensive and the publishers are very cautious, they only want sure fire hits now."

Which makes the current state of the Amiga scene quite unique. While the stakes are very high on other platforms, the Amiga scene allows you to enter the fray at a number of levels. First of all there's the PD and shareware circuit, which can serve as a breeding ground for those who don't yet have the financial clout or all the skills and experience required to bang out a 24 carat classic. On the other hand, there's also the room to take risks with original game ideas that the major publishers would be too scared to take on. If you do hit the nail on the head with the next Tetris/Worms/Lemmings you can bet the big boys will beat a path to your door once it's been proven a success.

### IT'S A WRAP

And that about wraps it up for now. Of you go now and make some top games. Make sure you don't miss next month's CU Amiga, in which we'll be following up with a guide to getting your software published. Oh, and remember to give us a name check when you're big and famous.

Tony Horgan ■



design/director work, which I still really enjoy or business. To be honest I am becoming increasingly pissed off with the business side of it, it is all rather dull. I haven't done any graphics since Sensi Soccer and Wozkid, apart from the odd icon."

As an example, Xenon (1987) was created by a team of three people (two programmers and one artist) with the audio subcontracted out. One of the Bitmap's more recent games 'Z' was created by four musicians, three designers, five programmers and five artists.

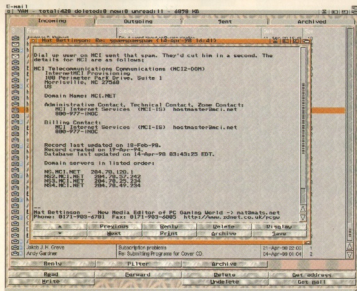
out to make a fast buck by pulling the wool over peoples eyes on the back of their somewhat limited technical knowledge. Programming is about being good and having staying power and being able to work in

### THANKS TO...

Big thanks go to Jon Hare at Sensible Software, Simon Knight at the Bitmap Brothers, Steve Hammond from Devil's Thumb Entertainment and Ed Collins of World Foundry (whose sketches and renders from the forthcoming Explorer 2260 adorn these pages) for their valuable help in the compilation of this feature.







▲ They key to eliminating spam is finding out the spammer's real identities and asking their ISP to stop them.

## Damn Spam!

All it takes is a program to sweep the Usenet newsgroup forums for email addresses and even automated web spiders which operate like search engines slowing reading every web site branching out forever. Only instead of acting as search engines, these malignant programs are designed to pick up email addresses instead. The would-be Spammer will run one of these programs for a few days and you have list of a million email addresses and more.

It's a simple matter to contact an Internet email host and send a million copies of the message – it doesn't even have to be sent a million times, the technology will duplicate it automatically. How this works is somewhat technical but the gist remains that it's totally free for a Spammer to write an email and tell a mail server to send it to a million people. It will then contact hundreds and thousands of other mail servers and pass on to them the message with a list of local addresses and so on down the chain until a 2K message turns into a couple of gigabytes of net traffic, all of which cost the Spammer spare change.

It might sound strange that the Internet mail system works like this but it has to for good reason – mailing lists, just like the CU Amiga list, are a legitimate use for sending out hundreds of copies of the same email. Spammers in effect run a mailing list too,

only no-one asked to be on theirs. The trouble with the Internet is that being a global entity, it's impossible to police with any one set of laws. The practice could be outlawed in the UK but it's impossible to enforce if the perpetrator is in the United States – as is the case with 90% of Spam. In fact the United States problem the issue with each state having separate laws and so on.

The problem of Spam has been around for some time and it's getting worse. Good news is that as the population of Netizens rise and the Internet becomes a mainstream medium, the problem of Spam is receiving attention from the American law makers. It just hasn't happened yet and "why?" is more complex issue than ignorance alone.



## Meet Sanford

To potential advertisers, being able to say what they hell they like to a captive audience of millions of people, for the cost of only a few hundred dollars is too good to be true. It turns out that this is a very valuable service

## Fighting Spam

There are things that can be done about Spam. These don't include trying to abuse the sender as this simply won't go anywhere, let alone to the recipient.

**1** Don't give out your email address. That doesn't mean you don't tell your friends, it does mean that you don't fill it in on a web page or post a message to Usenet newsgroups with your real email address configured.

**2** Try to find which Internet Provider was used to send the mail and then complain to it. This is somewhat technical and involves sifting through the highly jargon-laden 'header' of an email for the evidence. Alternatively ask your provider to track them down if you're not sure. Talk to the support at your Internet provider and they should be willing to help.

**3** Don't ever EVER contemplate purchasing something from a Spammer advertisement. By doing so you reward the practice and ensure it continues. Is a company using this technique likely to be reputable?

**4** Filter the Spam. There are some 'plug-ins' for email clients which will attempt to guess what messages are Spam. This isn't usually too difficult given the exclamation marks, 'FREE!' and 800 number mentions in each one. The email client will usually trash such messages, try <http://www.a.minet.org/aminetbin/find?Spam> to see the Aminet anti-Spam programs that are available.

**5** Tell your local MP about the problem. He/she may want to appear modern by taking the issue up and since it's a safe bet crowd pleaser, they'd be assured of a positive reaction. MPs like those kind of bills.

which creates a market for the commercial Spammer to make a living.

The most prolific, not to mention famous, is Sanford Wallace's Cyberpromo. The antics of this man and his career in unsolicited commercial email verges on a legal soap opera. Wallace may have come up with a scheme for a quick buck, like most of his clients, but he didn't count on the backlash.

Out of the millions of recipients, a few percent were annoyed enough and possessed the technical ability to track down the sender and retaliate with a variety of nasty hacking antics. Needless to say, this was indicative of Wallace not being a very popular man.





## The Exhibitors

Although the line up of exhibitors is yet to be finalised, with a number of parties still in negotiation, the show is filling out nicely with exhibitors and interesting exhibits. Here is the list of confirmed exhibitors at time of press.

### Active Software. Stand 114

Active Software are the Amiga commis experts. They will be debuting the long awaited Netconnect 2.0, featuring some important new developments for Amiga commis users. They will also have their highly rated ST FAX pro software and Pace modems.

### Amiga Format. Stand 136

Our esteemed rivals.

### Amiga Inc/Int. Stand 114

The guys behind it all. Both US and German divisions will be in London in force to answer your queries, talk about the future and give out posters. Petro will be introducing the new Amiga Theme music on CD, and there will be live performances and dancing girls!

Most importantly, Amiga Inc are expected to make an announcement of their business plans and the direction that the Amiga will take for the future. Expect a lot of excitement, controversy and lively debate!

### Ateo Concepts. stand 114

Manufacturers of the excellent Ateo keyboard interface, and the Pixel64 graphics card/bus board for the A1200. Also tower cases for the A1200 and A4000

### Blittersoft. Stand 126

UK retailers and distributors of products including Micronik Towers, Picasso IV graphics cards and Fusion. Blittersoft will be presenting the new BoXeR Amiga compatible at World of Amiga for the first time.

### ClickBOOM! Stand 139

Top Amiga games company. Will be hosted by...

### CU Amiga Magazine. Stand 139

The world's best selling Amiga Magazine. We'll be there to answer your questions and discuss the latest developments. We'll have offers on the mag, and a lot to see - including ClickBOOM's latest games.

ClickBOOM will be on our stand and we will be jointly hosting a Quake tournament and showing some of their upcoming titles. Make sure you drop around, there will be something for everyone.

### Digitia International. Stand 112

Producers of Wordworth, the Amiga's leading WordProcessor.

### Epic Marketing. Stand 116

Epic will be showing off the latest version of a range of products including Epic Encyclopedia '98, Virtual Karting 2, and "several other surprises". They will have the latest from the APCBTC range, including Adventure Shop and Testament 2, and will be hosting Titan Computers.

### Eyetech. Stand 152

Eyetech produce a wide range of products for the Amiga. They will be showing their tower, single slot Zorro, IDE CD-Writer, digital cameras and ScanQuix 4 scanning software. They have promised a range of "show specials".

### Golden Image. Stand 108

Golden Image are a long standing supplier of Amiga goods including TV amazing and Catweasel.

### GP Software. Stand 148

GP Software are producers of the immensely impressive Opus Magellan, and will be displaying the latest version of this software.

### Haage & Partner. Stand 114

# World of

**We take a sneak preview at what is rapidly most exciting - and momentous -**

**T**he World of Amiga Show '98 will be taking place on the 16th and 17th May at the Novotel in Hammersmith, London. The WOA is the UK's premier Amiga event: everybody who is anybody in the Amiga world will be there - make sure you are, too.

As we all know, recent years have been a dark time for the Amiga, but this year's WOA show is set to be a bright and brilliant spectacle - a show fit to celebrate a new beginning. The new owners of Amiga, Amiga International, have top billing. They will be revealing their latest developments, particularly the progress made with OS3.5 - and are rumoured to have a very important announcement up their sleeves.

There have been revolutionary developments in the sphere of Amiga hardware of late. All the top manufacturers will be exhibiting at WOA '98, demonstrating their new Amiga gadgets and add-ons in action. If you want to see the eagerly-awaited BoXeR board or salivate over a PPC being put through its paces, this is the event for you.

The last few months have been an exciting time for Amiga games, too. WOA will see the launch of some of the most exciting Amiga games releases in years, including Foundation, Genetic Species and Quake. Expect all that is new and good in Amiga games to be on show.

However, the WOA is not just an opportunity to view products - it is a chance to buy them as well. Many a bargain will be on offer at the show, from a myriad of suppliers and dealers, all displaying their Amiga wares. Huge savings can be made over the normal retail prices, so remember to take your wallet with you. If that wasn't enough, there are going to be prizes on offer too - several companies have expressed an interest in running competitions, and ClickBOOM and Haage and Partner are hoping to give out door prizes.

AmigaSoc UK are organising a series of seminars to be held over the weekend, with Kermit Woodall of Nova Design, Steve Jones of Siamese and Alain Penders of Finale developments all signed up to give talks, with more to come. There will also be a presentation stage in the show hall with a number of events including a live showing of the FA cup final on a huge screen.

Last but not least, the World of Amiga Show is a chance to meet and speak to your

fellow Amigans: not only the people behind all that amazing Amiga hardware and software, but also the user groups, the magazines and journals, and all the steadfast members of the Amiga public like yourselves. Amiga users are well-known for their sense of community, so come to WOA '98 and share the experience.

There will be a number of user groups attending, and technical help will be offered. There may be a space available for user group tables, but that is not yet confirmed.

The Novotel in Hammersmith, the venue for WOA'98, is only a five-minute walk from Hammersmith tube station, and so is easily accessible from the whole of London. Routes to main line stations for connections to the rest of the UK and to airports for the rest of the world are simple and straightforward.

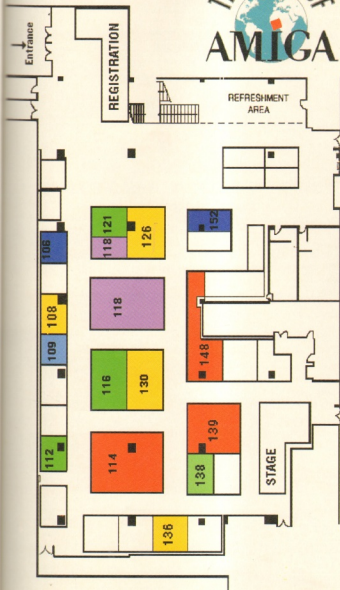
As you can see, with all these marvellous sights to see and all these wonderful people to meet, the World of Amiga Show '98 is the event that any self-respecting Amigan must attend. CU Amiga Magazine will be there, and we expect all of you to be there, too. Don't miss out on the fun - see the World of Amiga advert on page 47 for the full details. If you have Internet access, keep tuned to: <http://www.cu-amiga.co.uk/woa> where all the latest information on the World of Amiga show will be available as and when we get it. See you there!

## Highlights of the show

It has been a long, long time since the UK saw a show like this. Whether you are into games or the more serious side of Amiga computing, this is shaping up to be the best Amiga show in years. Games players are going to see the likes of Quake, Napalm, Genetic Species, Golem, Foundation, Forgotten Forever, Haunted, and a surprise or two. ImageFX 3.0, Wordworth 7, Elastic Dreams, the latest Opus developments and Amiga Forever are the big players on the serious application front, but there are going to be some new products hoping to grab the headlines such as the new H&P wordprocessor EasyWriter and new browser Webcruiser. On the hardware front, we will see the first public presentation of the CyberstormPPC 3D graphics card, the InsideOut Amiga on a card, the BoXeR and the Ateo busboard/graphics card.

# f Amiga!

turning out to be quite probably the  
Amiga show in many years



Top Amiga software company Haage & Partner will be on the Amiga International stand, demonstrating StormC and ArtEffect, and debuting their new Wordprocessor package Easywriter.

#### Hi Soft. Stand 121

Hi Soft are the company behind Soundprobe, Squirrel and Hi-Soft C, and will have their CD-RW system on sale.

#### ICPUG. Stand 106

The Independent Computer Products Users Group.

#### LIH Publishing. Stand 112

Suppliers of manuals and books covering all aspects of Amiga DTP and UK distributors of Pagemaster and Drawstudio. Will be hosting Digita International.

#### Nova Design. Stand 148

Nova Design are the company behind the stunning ImageFX 3.0, reviewed in this issue.

#### Olympus Digital Cameras. Stand 109

Olympus will be showing the latest in their range of award-winning digital cameras.

#### Power Computing. Stand 118

Power Computing are the UK's largest Amiga supplier. Scan doublers, the Power digital camera, the amazing Golem and PowerMovie will all be on display alongside a huge range of towers, accelerators and other assorted add-ons.

#### Sadeness Software. Stand 130

Sadeness will have the brilliant OnEscape available, and are hoping to have a Foundation head to head set up to allow visitors to play their new game against the author. Foundation should be on sale at the show.

#### Siamese Systems. Stand 138

Siamese systems will be demonstrating their Siamese PC/Amiga system, and will be presenting the InsideOut Amiga on a PCI card to the public for the first time.

#### Titan Computer. Stand 116

German software company Titan Computer will be presenting new versions of their products on the Epic Marketing stand. BurnIT PPC, the first PPC CD-ROM writing software, Art Studio and Shadow of the Third Moon will be available. They are hoping to have demos of games Shadow of the Third Moon 2 PPC, Evil's Doom and Claws of the Demon too.

#### Weird Science. Stand 130

Weird Science will be selling a huge collection of Amiga CDs. They will have all the Amimet disks, Amiga Forever, the latest Schatztruhe titles, and will be hosting games companies Sadeness Software and Vulcan.

#### White Knight. Stand 148

White Knight are a leading provider of professional Amiga and videographics hardware. They will be showing the phase 5 PowerUp cards.

#### Wizard Developments. Stand 148

Wizard developments are a leading UK retailer. They will be hosting GP Software and Nova Design, whose products they distribute in the UK market.

#### Vulcan Software. Stand 130

Vulcan will be showing their latest projects on the Weird Science stand, including the impressive Genetic Species, which will be launched at the show. Watch for the robotic face hugger!

#### Bubbling under:

Several companies are negotiating for stands at the moment. Alive Media software hope to be there with the latest demos of haunted and Gilbert Goodmate, and phase 5 will be present in some form - although currently demands on staff may limit this to Wolf Dietrich and Gerald Cards promoting their products on the stands of their various distributors. Versalia computers should be presented on the Amiga International stand, and several other companies are currently in discussion.

# REALITY GAME ENGINE

## SPECIAL OFFER 1

### UPGRADE TO THE LATEST VERSION OF THE REALITY GAME ENGINE V2.0

This includes the full instruction guides, tutorials for the skeleton disks and the most recent edition of the Reality disk magazine! You'll also get membership to the Reality user club, which runs the Reality helpline service! Membership of the club gives you access to further different Reality skeleton disks which will enable you to create various styles of software including fighting games, puzzle games, driving games and more! You'll also be able to get new art and sound disks too! The club runs competitions, a swap shop, a Reality pen pals section, new tutorials section and much more!



**Half price special offer £14.99+£1.00 P+P!**

Includes free extra skeleton disk - The super fast scrolling platform skeleton disk!  
Create games similar to Zool and Sonic the Hedgehog with ease!



## SPECIAL OFFER 2

### REALITY THE BOOK!

#### A BEGINNERS GUIDE TO CREATING TOP CLASS GAMES FROM SCRATCH WITH REALITY!

A brand new informative guide written by the programmer of Reality, designed to help new users easily get to grips with the Reality game engine. Includes topics on getting the most from the editors and utilities, game designing aspects, hints, tips, and also covers the creation of two new commercial games created using Reality which also come free with the book on separate disks! You can thoroughly inspect how the games were put together step by step! A must have book!

**Price £14.99 + £1.00 + P+P**

Includes two new free Reality created commercial games!

## SPECIAL OFFER 3

### THE REALITY ART AND SOUND DISK COLLECTION!

A huge selection of IFF graphic art and sound disks are available for use with the Reality game engine that you can use in your own software creations. Professional products put together with the help of a top graphic artist and musician. Months of hard work already done for you!

**Price £24.99 + £1.00 + P+P**

16 disks of Art, sound and music!



**ALL THREE SPECIAL OFFERS ONLY £49.99**

**INC POSTAGE AND PACKING!!**

To order send a cheque or Postal order payable to B.P.M. Promotions,  
8 Magnolia Park, Dunmurry, Belfast, BT17 0DS.  
Telephone (01232) 751699. Orders normally despatched same day!





**Player Manager 2 EXTRA**  
Premier 1-A Amiga Action  
£5.99



**Operation Combat 2**  
By the Lord and the Lady  
£3.99



**Abduction**  
3D Game Show  
£2.99



**Cannon Fodder**  
The new look, new sound, new light  
£3.99



**Blockhead**  
Amiga's Guide game  
£7.99



**Nematic IV**  
Amiga's 3D action RPG game  
£19.99



**Mega Blast!**  
Big Bombs! Bombs and more  
£7.99



**Base Jumpers**  
Base Jumpers  
£4.99



**Lost Vikings**  
Puzzle Solving at its best  
£3.99



**Cannon Fodder 2**  
New look and new sound  
£5.99



**Cygnus-6**  
Space Force training  
£14.99



**Flyin' High**  
3D Action RPG game  
£14.99



**Pinball Illusions**  
Fun, Fun, Fun  
£3.99



**Sword**  
Great platform action... Intu  
£14.99



**Breathless**  
Super Smooth 3D Action  
£3.99



**Dune II**  
Strategic management  
£12.99



**Mobile Warfare**  
Tactical warfare simulation  
£14.99



**Civilization**  
Create an empire to last time  
£14.99



**Pinball Fantasies**  
Fun, Fun, Fun  
£5.99



**XP-8**  
Additive vertical shooter up  
£4.99



**Police Quest**  
The original and the best  
£3.99



**Turbo Trax**  
The best racing action  
£3.99



**Master Axe**  
1-2 Player Battle up  
£14.99



**Theme Park**  
Create the biggest amusement park  
£12.99



**Pinball Mania**  
Sixty smooth pinball simulation  
£5.99



**Xenon 2 "mega blast"**  
Rated 100% by Amiga Computing  
£4.99



**Total Carnage**  
Blood everything but brains  
£2.99



**Testament**  
3D action RPG... Rated 90%  
£4.99



**World Golf**  
With eye new golf game  
£3.99



**Street Racer**  
Straight from the PlayStation...  
£12.99



**Slam Tilt**  
See Pinball Mania...  
£12.99



**PowerDrive**  
BQ or "top drive" race  
£3.99



**Skeleton Crew**  
3D action RPG... Rated 90%  
£2.99



**Flight of the Amazon Queen**  
Game action shooter  
£19.99



**Gloom**  
3D action RPG... Rated 90%  
£12.99



**Ultimate Skidmarks**  
Map action racing 1st  
£12.99



**Pinball Obsession**  
Excellent Pinball Simulator  
£5.99



**Ruffian**  
Fast paced action game  
£4.99



**Flashback**  
Outstanding game... Rated 90%  
£14.99



**Blazing Dragons**  
RPG... Rated 90%  
£4.99



**Medevil Warriors**  
RPG... Rated 90%  
£14.99



**Ruffian**  
Fast paced action game  
£4.99



**Flashback**  
Outstanding game... Rated 90%  
£14.99



**Blazing Dragons**  
RPG... Rated 90%  
£4.99



**Medevil Warriors**  
RPG... Rated 90%  
£14.99



**Pinball 8 Damage**  
Pinball Simulator... Rated 80%  
£14.99



**Ruffian**  
Fast paced action game  
£4.99



**Flashback**  
Outstanding game... Rated 90%  
£14.99



**Blazing Dragons**  
RPG... Rated 90%  
£4.99



**Medevil Warriors**  
RPG... Rated 90%  
£14.99



**Pinball 8 Damage**  
Pinball Simulator... Rated 80%  
£14.99

# OVER 500 DIFFERENT TITLES IN STOCK!



"Simon the Sorcerer" is one of the Amiga's most magical adventures. "A British Adventure that's taken the world by storm." The "The animation... has to be seen to be believed." CUI Amiga "You really shouldn't miss it." KC. The voice of Simon is Chris Barrie (Mr. Bates). Available on: Amiga CD, CD32, ECS Disk & AGA Disk. Requires 1mb ram, (CD for Sorcerer) Only £14.99



"Virtual Karting2" - The Ultimate Karting Simulation is finally hit the Amiga. Includes six thrilling tracks! Some of the fastest AGA textured mapped 3D graphics you'll see, even on a standard A1200. This game really moves. Available on: AGA Amiga CD & Disk. Only £14.99



Call: 0 1793 432176 Fax: 0 1793 484097  
New Entertainment (Epic) - BSS House, Ave50, Cheney Manor, Swindon, UK. SN2 2PJ

Please make cheques/postal orders payable to ISLONA Entertainment. Please add a £1 per box for the high within the UK and £2 per the Overseas. Trade enquiries welcome. Islena Entertainment is a trading name of Epic Marketing. All prices listed include VAT. EISA Amiga Award. Amiga A1200 etc. Please add £10 for a full, up to date list of games. CREDIT CARD ORDERS WELCOME. STM EDITION - The Original... Only £2 with any order. (unless it is natural)



"Shadow of the 3rd Moon" A tight simulator like no other. "6 different campaigns" "Up to 48 missions" "Digital soundtrack" "Realistic Fog, Fire, Smoke etc" "Fantastic landscapes" Available on: AGA Amiga, 68030, CD. Only £19.99



"Monkey Island 1 & 2" - All time classic adventures! "Eye-popping 3D graphics. Cooool!" "Can playing nigger music. Yeah man..." "Simple 'point'n'click' interface." "Relentless jokes, and cryptic in-jokes only smart people will understand." "Optional easy mode for beginners." "Over 10 hours of play. Not available separately. Suitable for any Amiga. Only £24.99 for both!"



"THE BEST AMIGA GAME EVER" Three Worlds - With 30 huge locations. Full spoken dialogue on the CD Version. Superior 150 Colour Cartoon Graphics. 50 frame second animations throughout. Full animated intro... sequence on CD. Load and save at any point in the game. Hundreds of items to pickup and use. Massively complex enigmas. Month's of Gameplay. The biggest Graphics Adventure ever.



Lost Days in Paradise  
Testament 2 - The follow up  
Eat My Words - Brand New Football Game  
Shadow of the 3rd Moon II - PPC Only  
Total Condemnation - Carnagelanded clone  
Claws of the Devil - Tomb Raider on the Amiga  
Evil Dead SE - RPG with 3D Engine  
Pulsator, Phoenix, Meribelius, Skaut and more.

Coming Soon  
AMIGA  
THE BEST AMIGA GAME EVER

# ScreenScene

It's here! The legendary Quake is finally out. We give it a thorough seeing too - and then turn it upside down with the Quake total conversion game Malice.

If that wasn't enough, there is a re-release of Myst's older brother, and a look at what's hot this spring.

- 40 Game News
- 42 Quake
- 45 Malice
- 46 Labyrinth of Time
- 48 Tips Central
- 49 Adventure Tips



## Spring Fever

There have been times in the Amiga's past when we could expect to see more games being released over the spring than you could list on this page. I'm not sure there's ever been a spring they've looked this good. Feast your eyes on some of the beauties due to be on show at World of Amiga.

### Napalm

A posting on ClickBOOM's website on April 13th caused an uproar on the Internet. It announced that the ClickBOOM development team was no more, but said they would be "...back one day, in some better, more peaceful future." The next page said: "We hope you were prepared for The News. You must have heard all the warnings, and like us, thought it would all somehow resolve itself." Click the next link, and large red type informs you "The War has started!" followed by an exhortation to "Follow us as we assemble the heaviest artillery forces to blow the enemy away!" Yes, it was just ClickBOOM showing us that Canadians can be wacky too, with a bit of publicity - nicely worked in with the breaking story on the CNN news pages about the train load of ageing napalm being shuttled back and forth across the states - for their new game Napalm - the Crimson Crisis.

Ablaze Entertainment, previously responsible for the rather unimpressive Strangers AGA, released a demo of Diversia about six months ago and threw Amiga games publishers into a frenzy as they competed to sign the game up. ClickBOOM won the bidding, and with their input Napalm is the result. A classic top down real time strategy game in the Command and Conquer mould, Napalm is set in the future with a host of buildings and units to choose from and awesome graphics. We were amazed when we saw the original demo - we're really looking forwards to seeing what six months more work has done.

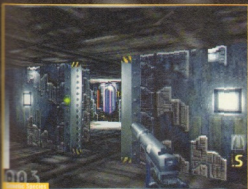
Further Details:

[www.clickboom.com](http://www.clickboom.com)

### Genetic Species

We've got a press preview of this game, and it's certainly looking like the promise will be fulfilled. It looks like a Doom clone, but plays more Paradroid or Gauntlet. The graphics are a real tour de force - compared to many modern 3D engines it is primitive, but the quality of the textures and the amazing lighting effects more than make up for it. If you thought that shooting barrels in Doom and watching a chain reaction of nearby barrels blowing up was fun, just wait until you see what GS has to offer. Find a room full of fuel tanks hit one, and watch a huge, billowing wall of flame spread through the room, and if you aren't careful, engulf you.

Genetic Species has a great range of weapons, monsters and locations to keep up your interest, and it is clear that a lot of thought has been put into the design of all three. It's engrossing, gorgeous, and if early indications are anything to go by, a lot of



Golem is basically an adventure game, but one in which your character explores a 3D world under joystick control. There is no way that even a PPC machine with a top of the range 3D graphics card could actually generate 3D imagery of this detail this fast, so it is all pre-rendered and played according to what you do with the joystick. When this has been attempted in the past the usual result is a game which looks great but plays like one of those old choose your own path adventure books. The demo we played was rather limited in scope, but

fun. We are hoping to have the full version for review in the next issue – keep your eyes peeled, this one looks like a winner.

**Further details:**  
[www.vulcan.co.uk](http://www.vulcan.co.uk), orders: Weird Science  
 +44 (0)116 246 3800

## Golem

Underground Software's extremely tasty looking Golem has been snapped up by Power Computing, who are making something of a habit of publishing Amiga games written by Italian developers. The release schedule is a bit less clear than the other titles on this page, but a demo should be on show at World of Amiga, and a release date should not be too far behind.

Golem is an extraordinary game. Based on a custom animation format said to be significantly more powerful than industry standards such as AM or MPEG, Golem creates a narrative by spooling some stunning rendered animation from CD. The obvious worry for a game like this is that it will end up being no more than the bastard child of Lightwave and Dragon's Lair, the ancient laser disk arcade game.

actually managed to achieve an illusion of real time control. If the game play manages to appear as smooth throughout, Golem is going to be a game that could make the entire games industry sit up and take notice.

**Further details:**  
 Power Computing, website  
[www.powerc.com](http://www.powerc.com) or phone 01234 851500

## Foundation

What can I say about this one? An epic strategy/war game that has been in development for about 3 years now. When a demo appeared on the Aminet a few months ago, author Paul Burkey was so engulged with questions, queries and ideas that he's been working overtime to fit in everything he wants – impressively, the demo is now up to version 8.

Full of resource management as well as all out war, this one is more like settlers than Command and Conquer, so don't expect this to be a head to

head with Nagalm. The features list is impressive, and the scope enormous. Graphically detailed but designed to work in a wide range of resolutions, this is one game that should look good on all but the most basic set ups. All this and starring around 1000 Amiga users who sent in mugshots of themselves, too!

Foundation should be at WOA in a complete – or very near to – form. Sadness are hoping to have a networked setup to allow all comers the chance to challenge Paul at his own game. However that will not be the end of it, as upgrade patches (including full TCP/IP support for internet play) and



extra mission packs will be made available. This one looks like the kind of game that ought to come with a health warning – buy this and you'll get far too little sleep.

**Further Details:**  
[www.sadness.demon.co.uk](http://www.sadness.demon.co.uk) orders: Sadness  
 on +44 (0)1263 722169 or Weird Science  
 +44 (0)116 246 3800.



# Quake

■ Price: £29.99 ■ Original Developer: ID Software ■ Amiga Developer: Click800M ■ Web: <http://www.clickboom.com>

**The most talked about Amiga game in years is here, and the impossible made possible. Welcome to Amiga Quake.**

**S**ome people upgrade their computers to get better Internet access. Some people upgrade for improved graphics handling, others to make codec algorithms run faster. None of the above reasons are nearly as common amongst PC owners than upgrading to get a better Quake frame rate. If Amiga owners follow suit there are

going to be some pretty happy hardware manufacturers out there over the next few months, because a lot of Amiga owners are going to have to upgrade to get the most out of Amiga Quake. The happy news is of course that it is worth it.

Quake, for those who have not been paying attention to the world of computer games in the last 18 months, is a first person perspective blaster along the lines of Doom, but set in a true 3D world in which you can look and aim at any angle. There is a story, of sorts, about a bad guy and slip-gates, but it is best ignored. The basic premise is that you are a mercenary sent hopping through the dimensions to fight assorted demons and monsters, hunting the four runes that you need to defeat the big boss of badness.

## Welcome to Hell

Visiting an assortment of futuristic bases and sword and sorcery style wizard's towers, you roam around killing everything that moves, switching switches to open up various parts of the complexes and travelling by lift, floating platform, or teleport gate.

There are various liquids to swim in, such as toxic effluents and water, and lava which melts you rather quickly. There are also plenty of pick-ups: weapons, armour and health, and a few specials, such as the biosuit which allows you damage-free dips in the toxic waste, a pentagram of protection which makes you temporarily immune from harm, and the Quad Damage, which makes you deadlier than a bucket of anthrax.

You progress through four zones, each with one of the four pentagrams at the end. Each zone consists of a half dozen or so different levels, each one a little tougher than the last. Finishing each mostly involves killing a bunch of monsters, but there's a bit of puzzle solving too, in the shape of switches that need to be switched and traps that need negotiating.

You can rush headlong through a level avoiding quite a lot of the action if you know the way, or you can take things more slowly, making sure you kill all the monsters and find all the secret areas.



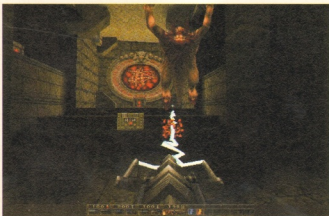
▲ Stand well back – these guys burst!

Quake is one of those games that benefit from prior knowledge of a level. You can save a lot of trouble if you bounce grenades around corners you know are hiding badguys, but there is just enough flexibility in the game to allow levels to be completed without knowing all the tricks. Having said that Quake is not an easy game, so be prepared to ease yourself in, and save your game regularly.

## Make friends – and frag them.

It has been suggested that Quake doesn't have the gameplay of Doom, which is not true. Quake is a better and richer game without doubt, but it is also a game which seems to outlive its own content. People liked Quake so much that they played out the levels and wanted more. Luckily Quake has a couple of tricks up its sleeve.

The first of these is the multiplayer options. Two computers via serial connection or modem, or more via IPX or TCP/IP networks, can share a game of Quake allowing multiple players in the same game. Normally this takes the form of a deathmatch game, in which the participants rush around special deathmatch levels looking for weapons and blasting each other as often as possible. To aid interactivity Quake supports messages, and each player can have an individual name and clothing colour. There are possibilities



◀ Disturbing a fiend at rest is strongly inadvisable – unless you have a lightning gun of course.





▲ RAAAA!



▲ "Ex... that's not fair, I've only got a sword."

for team deathmatches and variants such as capture the flag games. Networking is clean and simple – and yes, you can network versions of Quake running on different platforms. Internet play is also an option, but you are likely to run into practical difficulties at the moment. Latency problems will make you vulnerable to players using Quakeworld, the Internet optimiser, on the PC, but fortunately Amiga Quakeworld is due soon – watch this space.

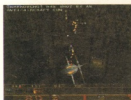
## Total Conversions

The other trick up Quake's sleeve is its programmability. Quake includes a powerful programming language called QuakeC, which allows fairly radical modifications to the game. Because the language is portable, QuakeC add-ons written for the PC version work fine on the Amiga too, making literally hundreds of Quake add-ons immediately available.

These add-ons can be as simple as extra weapons, or as complex as entire new games. A popular type are "bots", autonomous pseudo players. Using these it is possible to play capture the flag as a single player game, or spice up your deathmatch with the addition of a "borg-bot" which assimilates anyone it kills, animating their victim's corpse as another borgbot until the level is packed with the buggers.



▲ Quake chess total conversion



▲ AirQuake total conversion



▲ Painkeep total conversion

## What about PPC?

To get the obvious question out of the way, no, the PPC version does not come in the box. It's a real shame, because even the cheapest PPC card would make Quake a lot faster. ClickBOOM have told us that they hope to have a PPC version soon, but will be concentrating on 68K developments until they can be more sure of the long term commercial value of PPC. Until then, the long promised PPC Myst is being given priority.

## Choose your weapons

Weapons in Quake are varied in form, power and usefulness. Know thine enemies, but if you don't know your weapons, you're dead meat.

### Axe:

Weapon of choice for the bloodthirsty but suicidal. Effective against rottweilers and grunts, if you don't mind taking a few licks into the bargain. Try one against a Shambler – but only if you yearn for the grave.



### Shotgun:

Basic holdout weapon. Takes a few shots to drop most enemies, but ammo is plentiful. Better than an axe – but look for something else, fast!



### Double-barrelled Shotgun:

As above, but doubled firepower drops foes fast. Great for taking out weaker monsters in a single blast, safe in close quarters and easy to find ammo for.



### Nail Gun:

Now we're cooking! Fires a stream of nine inch nails certain to rip the flesh off a monster in less time than it takes to crack an egg. Watch for the guys in armour, though.



### Super Nail Gun:

The ultimate in hard ammunition weaponry, a cross between the nailgun and Doom's mini gun. It turns grunts into ratatouille, opens up a knight like a can of spam, even makes a fiend think twice.



### Grenade Launcher:

Lobs a canister of hi-ex. Great for crowd control. Use this to send a few grenades into a room before you enter. Great for laying down covering fire, attacking enemies on other sides of walls and blowing Zombies into frustrated gblets.



### Rocket Launcher:

Like a grenade launcher but the projectile is rocket assisted. Fantastic long range destructive potential, send 'em to hell before they even scent your sweat on the wind. Not to be used at close range. You aren't a great Quake player until you've mastered the art of Rocket Jumping.



### Lightning Gun:

This baby launches a stream of high voltage plasma in a sparking ark of pure death. Totals weaker enemies with the merest touch, fries fiends in a flash, even makes a Shambler ask for its mummy. Hit the button, use like a hose and spray it over a room full of foes. Yeah!



## Rogue's Gallery

"He who fights with monsters, should take care, lest he thereby become a monster. And when you gaze too long into an abyss, the abyss gazes also into you". So wrote Friedrich Wilhelm Nietzsche in *Beyond Good and Evil*, but judging by the amount of time I've spent hunting monsters in *Quake* without growing claws and spouting yellow froth from my ears, I reckon he was talking rubbish. "He who seeks monsters best know what they are up against," say I.

### Grunt:



He's the guy with the big gun you meet right at the start. Dumb, weak, and that gun isn't as deadly as it looks.

### Rottweiler:

Killer canines with teeth a shark would be proud of. They ain't no pussy cats but they won't give you too much grief. Just get out your shotgun and blow the sucker away - it's the only merciful thing to do.

### Ogre:



Looks a bit like Giant Haystacks on a bad day. Fat as the EU butter mountain, but mean as a student grant. If the chainsaw isn't bad enough, the sack of grenades makes things worse. Here's a guy it isn't fun to face at short or long range.

### Knight:

OK, so they may look a bit tough, but get real. He's a medieval nutter in a tin suit with a sharpened metal stick, while you're a lean, mean killing machine with high tech weaponry at your disposal. Blow him back to the middle ages.

### Enforcer:

A Grunt with a bit more grunt. Watch for the guys with the bigger guns - but don't treat them with too much respect.

### Zombie:



These guys have just climbed out of the grave and their plan is to drag you back in with them. Shoot them and they just get up for more. You can't kill them, so use explosives to turn them into harmless bite-size chunks.

### Scrag:



Spooky ghost - things. Not as tough as they look, just give 'em both barrels.

### Rotfish:

A hazard to swimming. Keep your eyes peeled and blast them before they take a bite. More annoying than anything else.

### Fiend:

The name says it all - these guys are nasty. They'll leap on you and rip you into spaghetti if you give them half a chance, and it takes quite a lot to kill them. Use your toughest weapon.

### Vole:

Spider demons with a mean line in heat seeking fireballs. Kill these guys quick, dodging their blasts is not easy.

### Shambler:



Be afraid. Be very afraid. Huge, powerful, capable of pummeling you into the dust or blasting you to atoms with their lightning bolts. Don't use rockets on these guys, they'll shrug them off - super nail gun or lighting gun is your only hope.

## Quake speeds

You can expect up to 10fps in full screen on an '060/50 with AGA, 5 on an '040/33 and 2 on an '030/50. 5 is bearable.



10 is great. Graphics cards add only around 15% as most of the work is calculating the polygons, not displaying them - the best thing about graphics cards is getting the lovely 16 bit modes.

To speed up, shrink the screen to 80% and select 1x2 pixels. Type `d_mipcap 2` and `d_mipscale 2` at the console and then try - you may end up playing with a screen as above but you can add a lot to your frame rate. Look for a guide to getting the most from Quake next month.

Most spectacular are the total conversions, which turn Quake into a totally new game. Some, such as *Painkeep*, are basically Quake clones, while others, such as *AirQuake*, offer a quite different gaming experience.

There are about three dozen of these I know of, varying from pretty uninteresting amateur efforts to commercial releases such as the awesome *Malice*, reviewed right after this. When you buy Quake, you're not just getting one game, you're getting dozens.

## Get Quaking!

The arrival of Quake is a real bonus for the Amiga. It is the most technically advanced game the platform has ever seen, and it has an enormous amount to offer the player. Some people will complain that the system requirements are too high, but on the highest spec machine available - Zorro 3 graphics card and 66 MHz '060 - it runs very nicely, and that is the power that PC owners had to upgrade from, not to, to play Quake.

Quake is a jaw dropping game. It is utterly engrossing and enormous in extent, thanks in large part to the range of add ons. Quake totally dominated the PC games world from the day it was released to the day Quake 2 was released, and it deserved to. Nintendo 64 and Playstation owners are howling for this game, but we've got it first, and we also have the internet and QuakeC facilities the console versions can't touch. Quake is the king of games - buy it. ■

Andrew Korn

## Quake

Processor.....i286 to T496 min	Graphics.....96%
Disk format.....CD only	Sound.....87%
RAM.....8MB	Lastability.....98%
Hard disk installation.....77MB	Playability.....93%

### OVERALL

The ultimate in atmospheric shoot 'em up action.

95%

# Malice

■ Price £14.99 ■ Developer: Quantum Access  
 ■ Available from: Weird Science ☎ 0116 246 3800

**You know about Quake, you know about Genetic Species, but did you know about Malice? Read on and all will be revealed.**

One of the best things about Quake is that it is highly programmable. As you probably know, you can load in new weapons, new monsters and new levels. Some developers have gone a stage further and produced "total conversions", add on packs so in depth that they represent an entirely new game. Widely considered the best of these is Malice.

Installing Malice to the Amiga is very simple, despite being originally intended for the PC. Just drag the Malice drawer from the CD to your Quake directory. The malice.bat file which fires up Malice on a MSDOS/windows machine will work as a launch script in AmigaDOS if you delete the winmem command. Weird Science should be able to supply an installer script.

## Meet the B.O.S.S

In Malice, you play a mercenary in a cyberpunk future, working for the B.O.S.S crime syndicate in their war against the shady Takahiro Industries. There is a mission narrative outlined to you in rather gorgeous 3D cut scenes which provide a lot of atmosphere, and foreshadow the twist at the end of the narrative.

Playing Malice is very much like playing Quake, just with rather more to do. There are plenty of switches as usual, but they do rather more, and you even get to move crates around and climb on them, Tomb Raider fashion. Exploration is made more varied by the introduction of "toyz" - see the boxout.

Combat has a lot more tactical depth than is usual in this sort of game. You might find yourself being shot at by an unseen assailant - take cover and look around for the SWAT soldier hanging above you on a rope, or the distant sniper hiding in the shadows, his position only given away by the muzzle flash of his gun. Even face to face, combat requires a little more thought. The weaponry is varied, and picking the right gun at the right time makes a lot of differ-

ence. Usually with this sort of game you end up using just your most powerful couple of weapons, but not in Malice. Sneak up to a room full of baddies, drop a napalm mortar in - and watch the ones who escaped the blast be set alight by their burning companions. Single targets at long range are ideal Uzi fodder, while a group in the distance is what the minigun was made for. The fact that some weapons require hitting a reload key can lead to embarrassment if you don't pay attention. Further complexity is added by the range of enemies - face a Banshee Mech and be prepared to spend most of the fight dodging that lethal stomp, while getting in close on a Torch means you'll likely end up on fire, necessitating a quick dash to the nearest fire extinguisher.

## Doom Raider?

Graphically Malice is brilliant, the Quake engine being used to dramatic effect in some huge and unusual sets. There is even "chase cam" mode, in which you see your character from outside in pure Tomb Raider fashion. A small bug in the Amiga Quake code causes the main character's trousers to flash psychedelically in the shadows in some screenmodes, but Clickboom know about this and expect to have a fix patch at some point - something ID Software do a lot



▲ Napalm action courtesy of one of Malice's excellent weapons.

for PC Quake. There are of course all the same issues of speed that Quake has - you will need a meaty Amiga - but Malice has pretty fast levels. Sounds are pretty much as per Quake but with a few atmospheric extras - odd rattling noises, heavy breathing, and your main character saying "I wanna hit something" in true Duke Nuke'em fashion.

Malice rocks. Malice has brilliant deathmatches and superb single player action too, a strong answer to those who thought single player Quake was a little dull. Malice is one of the best games out anywhere, and thanks to Clickboom's Quake, it's an Amiga game as well. ■

Andrew Korn.

## Toyz

One of the best features of Malice are the toys. These pick-ups add a hell of a lot to the game. There is a probe, which can be sent flying ahead of you to scout out the terrain, scuba gear for long underwater swims, a hover board, mini subs and parachutes.

Using these in the right places is not only essential for winning the game, but enormous fun. Dropping from a great height by parachute can be the perfect opportunity for some surprise strafing, while running around in the minis makes for very funny death matches, as the subs can outrun their opponent's (and rather dangerously, their own) torpedoes. It's the hover board that will quickly be installed as most people's favourite though. Not only can you skim across any surface, but the turbo boost allows you to fly into all sorts of unlikely places, and fly out of the way of oncoming fire. Rocket jumping? Who needs it?



▲ Get too near this guy and they'll send you home in an ashtray.

## Malice (requires Quake)

Processor.....See Quake	Graphics.....95%
Disk Format.....CD	Sound.....95%
RAM.....16Mb	Stability.....95%
Hard disk installation.....90%	Playability.....95%

### OVERALL

Utterly brilliant, worth buying Quake for alone

95%

# The Labyrinth of time

■ Price: £24.99 ■ Developer: Electronic Arts  
 ■ Available from: Alive Mediasoft ☎ 01623 467579

**Back in the days when when Myst was just a mere dewdrop, there was...**

**T**urn the clock back five years. People were just starting to appreciate what the CD-ROM could mean for computer gaming. Those users who could afford the hundreds upon hundreds it cost to get outfitted with drives, and those companies who could afford the thousands upon thousands it cost to produce CDs, were trying to figure out how to keep each other happy. And then there was the CD32, Commodore's little machine that could have lasted if it had been given a real chance. Such was the day of the Labyrinth of Time.

Now, those prices have dropped a whole order of magnitude, and The Labyrinth is back. In a way, this game belongs more to 1998 than to 1993. Back then, being able to exploit the CD by relying on loads data-hungry pictures and music was new, and made The Labyrinth a novelty. Now, of course, in the post-Myst era, it's old hat. There's more than a passing similarity between the two games, which makes it somewhat fitting that the first should be re-released just as Myst fever is starting to wane.

## Getting Lost

You're a nameless, tedious, bored workaday fellow leading a dreary life. (Well, that's what the game says about you, anyway.) That is, until you step into the subway car to be faced not by 300 other people but by Daedalus, architect of the Labyrinth of legend.

It seems that Daedalus has been commissioned by Minos of the underworld to build a new labyrinth, of tremendous power and great eclectic taste. Daedalus has no choice but to obey, but out of guilt contacts the first mortal he can find – you – and relates his story, indicating that Minos must be stopped. Daedalus takes you into the labyrinth. So, you find yourself on a deserted train car perched on a platform in the middle of nowhere. One of the doors leads out to a quaint turn of the century hotel, and so the story begins.

You have a few basic abilities in the world of The Labyrinth. You move about via arrow keys – turning left and right and moving for-

ward. You are able to pick up objects, move them, examine them more closely (often necessary, but often just for decoration), and use an item in your inventory on something in the labyrinth. You also have an automapper, which comes in very handy when you start wondering where to go next.

Clearly, you're going to need to solve some puzzles. The game is decent about giving you some indication of what to expect – you start out with a coin, so of course you might want to find a slot to put it in. A certain brick wall generates the unusual "You might want to open it first" message usually reserved for doors if you bump into it.

The down side of the puzzles is that it's not all that easy to figure out what's relevant. There are plenty of objects you can zoom in on which don't serve any particular purpose towards the solution of the game – they just look nice. That, and it's easy to fall into a "click everywhere" trap, trying to get a reaction out of the game when you give up on logic. The game's one-line status bar doesn't make it easier – there are lots of sarcastic retorts for actions which seem reasonable even if we have to keep in mind that not every possibility can be coded into a game of this scope.

The music is generally good, often orchestral, but occasionally gets very



▲ Daedalus wants a word.



▲ Step inside the belly of the beast



▲ This was funny, I figured you might enjoy it.



▲ The Labyrinth is good, clean fun.



▲ My other home is Superman's ice castle.

annoying – usually when you can't figure out where the next puzzle is and you're getting quite frustrated. The sound effects and animations (usually for opening doors and activating gadgets) add a nice touch to what is essentially a very static game.

The graphics are the real draw of The Labyrinth. This game is very possibly the best use of HAM-6 ever made. While the game lacks the cinematography of Myst and usually relies on dead-on views (closeups excepted), the various crazy locales in the Labyrinth are rendered (literally) in very attractive fashion. Some might be jaded by Myst's sweeping horizons, but I still found a few shots in The Labyrinth extremely impressive, almost breathtaking. And the standard cardinal directions and automapper make this an easier game to navigate than Myst.

Unfortunately, HAM comes at a speed price – even on an O60 with a fast CD-ROM, there's a slight pause when switching views. The speed penalty isn't usually troubling, but when you start spinning around in rooms trying to examine lots of objects, you start to notice it.

The Labyrinth did more with the CD-ROM than many before and many since. The game is engaging, if not thoroughly engrossing. There are design flaws, you'll need to disable AGA to run the game properly, and it doesn't have the same global legion of support that Myst enjoys. A slideshow, then? Well, maybe. But a slideshow with some puzzles to keep you paying attention, nonetheless. ■

Jason Compton

## The Labyrinth of Time

Processor	68020	Graphics	88%
Disk format	CD-ROM	Sound	85%
RAM	2Mb	Usability	88%
HD installable	NA	Playability	85%

### OVERALL

Some design flaws, but an engaging game nonetheless.

**78%**



Welcome to THE Amiga show for the UK...

16th and 17th of May 1998 in the Novotel, London

# THE WORLD OF AMIGA



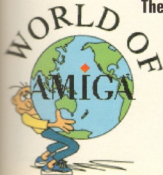
Come and see the latest developments... the Index/Blittersoft BoXeR, the Power/DCE A5000, Siamese, PowerUP, Quake, WordWorth 7, Foundation and more.

See the FA Cup live in the FA Cup final suite!

See the latest developments of OS3.5!

Network gaming, major news, major prizes.

The show that proves the Boing is back in the UK



Tickets £7.50 adults, £5.50 children.  
Ticket Hotline (+44) 01369 708029

trade enquiries/stand info, email: [woa@cu-amiga.co.uk](mailto:woa@cu-amiga.co.uk)



# Tips Central



Who said cheats never prosper... certainly not CU Amiga. This month our arcade expertise comes courtesy of Chris Green, and Sjur Mathisen supplies your regular fix of adventure tips.

## Elite

Byte No.	Change to	Effect
12	00 to FF	New Galaxy
13	00 to FF	New Galaxy
18	FF	Lots of credits
1F	46	7 light years of fuel
23	02	Large cargo bay
24	01	ECM System
26	01	Pulse Laser
2C	01	Escape pod
2F	01	Energy bomb
32	01	Docking computer
34	03	Galactic Hyperdrive
36	01	Mining laser
38	01	Military laser
3C	01	ECM jammer (L key toggles on/off)
3F	01	Cloaking device

Revered by some as one of the greatest games of all time, Elite is also one of the most complex. Thankfully there are an absolute stack of cheats built into it!

To activate the cheat mode; type in the word SARA (or SUZANNE if you have a later version) when the game asks you for a word from the manual. When it asks you again for a word, enter the right word from the manual.

During play, pressing the HELP key will bring up the built-in Hex editor used for the original game testing. By changing the byte codes to the ones listed here, you can poke and cheat your way to success:

### Cargo pokes

40	01	Lots of extra food
47	01	Lots of textiles
49	01	Lots of radioactives
4C	01	Lots of slaves
50	01	Lots of wine
54	01	Lots of narcotics
5C	01	Lots of computers
63	01	Lots of machinery
67	01	Lots of alloys
69	01	Lots of firearms
6C	01	Lots of furs
72	01	Lots of minerals
75	01	Lots of gold
79	01	Lots of platinum
83	01	Lots of gemstones
84	01	Lots of alien artifacts
88	01	Refugees from Supernova
8C	01	Important Thargoid doc

### Criminal record and rating pokes

97	01	Clean legal status
97	00 & 02-08	Elite ranking

## Doom

Here are a few more cheats for use with our DOOM coverdisks. They also work with Doom 2 and Final Doom:

IDCHOPPERS = Gives you the chainsaw

IDMAN = Skip level

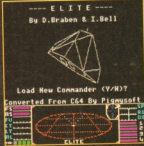
NOMONSTERS = Hey, guess what - no monsters!

IDTALL = Makes you taller and stronger!

IDWEAP = Gives you a secret gun!

IDMPOS = Displays coordinates and heading

IDMUS = (Map #) - Plays Music from Selected Level  
During multiplayer games, go into map mode, type ALT and IDDT several times and you will see your opponent's map marker move.



## TFX and Pinball Fantasies

TFX - When in flight press SHIFT+D to get full ammunition, rockets and aluminium strips, which should keep you in fighting form for a bit longer if you're having trouble.  
Pinball Fantasies - Type in the following code during gameplay: CHEAT - Get intro of cheat  
EARTHQUAKE - Stop table tilt EXTRABALLS - Adds seven balls FAIR PLAY - Disables the above cheats



## Adventure Helpline

### Hook

How can I get some pirate clothes?

Alan H, Netherlands

Have you asked your mother if she can make a costume for you? If she won't try the following:

Behind the pirate square, get the line pole and the anchor. Go to dead mans pier and grab the rope and use it with the anchor. Enter Bait and Tackle and go up to the open door. Now use the anchor with rope three times on the top of the croc to get to the other side.

You should get a hat now if you have good timing. If not, just keep on going back and forth until you get lucky. Next go behind pirate square and use the pole on the blue jacket. To get the last piece of clothing go to Jolly Roger. Get Fake Jake as drunk as possible and take his pants.

### Indiana Jones - Fate of Atlantis

On the wits path I found the truck in the desert and I have a spark plug, but where is the battery? On the team path I am in Crete and I've used the surveyors transit with the bull's head and bull's tail but what was the point? Nothing happened!

Also, on the fists path I am in the desert and every time I go down the ladder I get shot at when

I try to come back up. What do I do? Please help quickly!

Katie Scott, Twickenham

Hello Katie. See you've got your mind set on completing this game one way or another, and I don't blame you because it's great! It reminds me of one time I was stuck at a dig site in the desert with a truck, but no battery.

The problem was that I had to get to Monte Carlo to save the world. What I did was to use a clay jar and a hose I found in a pit, to grab some gas from the trucks gas tank. Then I returned to the pit and filled a generator with the gas and turned it on. Light! Now that I could see what I was doing I picked up a 'rib of a ship' and used it to tear down a crumpled wall.

Next I pushed a painting, picked up a statue, found some orichalcum and used it with the statue. Now I just called for a mechanic and had him install the spark plug in the engine of the truck, and used the statue as a battery. The world was safe, once again. Did you find the story interesting? YES! Well, let me tell you another one then. I was off to save the world, and had to drop by Crete to pick up a moonstone.

The only problem was that I had no idea where it was hidden. I ran back and forth into different

entrances, and in one of them I found what I was looking for. I found a mural diagram with a bull's head, horns and tail.

This told me to put the surveyor's instrument on the head statue and look through it to the left horn. Then to put it on the tail statue and look at the right horn. This gave me an X. I grabbed the ship rib I found some other time I saved the world and made a hole in the ground. That's how I found the moonstone. Hmmm.... Did I mention how I took care of a huge nazi with a machine gun at the dig site? NO? I just nailed him with my whip before I beat him up. I could sit here and tell stories all day Katie, but I promised some other folks I'd help them with their problems too, take care!

### Monkey Island 1

I'm stuck on Part 3. How can I get the banana picker out of the cannibals hut? I must give the cannibals an offer for the great Monkey, what can I give them? I give the monkey five bananas, and now he's following me what can I do with him?

Alan H, Netherlands

You really want to be a pirate, don't you Alan? Both Hook and MI together! Go to the gigantic monkey head at the clearing of the east end of the island. Make sure

the monkey is following you. Pull the nose of the totem pole. Now you'll get past the fence and should find a wimpy little idol. Trade it for the banana picker.

### Indiana Jones and the Last Crusade

In the catacombs under the church I can't get past the bars to the knights tomb. Please help.

Ben Moore, Leicester

I must admit I don't remember where in the catacombs you are, but I know you'll never get through those bars. What you do is take a longer, more complicated route.

I'll just give one of those boring straight to the point guides to help you there. Walk until you find a room with two skeletons on the east wall. Get the hook. Continue east past the room with the torch and keep going until you get to the sewer room with a manhole cover. Return to the surface. Take the wine on one of the tables and return to the sewer. Walk to the board filled with water and fill the wine bottle. Return to the torch and use the water to loosen it. Pull the torch and enjoy the ride.

After that perfect landing go east past the screen with a cork and some dripping water. Write down the inscription. Back to the cork. Use hook in cork. Whip the hook. Go back up to the screen where you filled the bottle. Take the door to the right. Use red cord to fix the machine. Use the wheel on the right to turn it on. Explore the area until you find a room with three gold statues near a door. Check the Grail Diary and push the statues until they stand in the correct order. Go through the door. Find a narrow stone bridge and cross it. Go into the tunnel, walk round some more until you end up in a room with some skulls on a table. Check the Grail Diary to find the correct order to push the skulls.



We start off this month with the latest version of one of the Amiga's true killer apps - ImageFX 3.0. Plenty more to keep the image conscious happy with scandoublers, a very cheap digital camera and a rather tasty genlock.

# TechScene

## 50 IMAGEFX 3.0

The latest version of this premier image processing application is put to the test by Harv Laser.

## 55 TURBOPRINT 6

Tony Horgan gets that swollen-head of his round this excellent printer enhancement package.

## 56 TV AMAZING

This audio/video switching unit may have a funny sounding name, but we weren't put off by that.

## 57 SCANDOUBLERS

They may be endorsed by Al themselves, but we ask if they're worthy of the Boing Ball logo.

## 59 SIRIUS GENLOCK

Richard Drummond takes a look at this superb quality, video output device.

## 62 AMIB-H 3.0

Jason Campton looks at the rise of this browsing package to its position of serious contender.

## 63 MASTER ISO V2

MasterISO V2 is the latest CD-R/RW software from Canadians Asimware.

## 64 POWER DIGITAL CAMERA

Power's latest camera is as inexpensive way to get into digital photography... is it good value?

## 66 PD NET

Back once again is the Net PD-Meister Dave Stroud, with, would you believe it... Internet PD!

## 68 PD POST

More PD software for the 'info-highway Challenged', now bought to you by Richard Drummond.

## 70 ART GALLERY

Look closely at Mr 'Chiestraking' Koras ought to see a striking to resemblance to Jimmy Hill.

## 72 USER GROUPS

(Sarcastically) 'Why thanks Tony, for asking me to compile this section of the mag'... (Russ, Production Ed)

# ImageFX 3.0

■ Price: See panel overleaf ■ Developer: Nova Design

■ Supplier: Wizard Developments ☎ 0181 303 1800

★ <http://www.novadesign.com>

**Living proof that Amiga software development is alive and kicking the opposition into touch, ImageFX is back with more power than ever before.**

**A** new version of one of the Amiga's flagship applications is always something to get excited about. ImageFX has long been a favourite with everyone from the occasional dabbler to the professionals. It's an image processor with built-in/bolt-on morphing and animation processing features, and an impressive array of special effects and compositing tools. Even so, nothing is ever perfect, and v2.6 still left plenty of room for improvement.

The most obvious change since the last release is the more standardised window-based interface. While the original split screen approach is still available (now referred to as the 'Classic' edition), many will welcome the new system which bends the original interface to fit in with more familiar working methods. In this mode, the layout of the main control panel is virtually identical to that of older versions, except this time it's drawn using a conventional window and buttons. Images (or buffers) are now loaded into their own resizable windows on the same screen, allowing for multiple images to be viewed simultaneously. The front end hasn't been totally transformed (for example, there

are still no pull-down menus) but a good balance has been struck between the old and the new.

This new interface features the floating 'child' menus - secondary tool bars you can drag and position anywhere on the screen and leave open all the time while you work, and multiple simultaneous image windows, which you can stack, tile, resize or drag around as you please.

While you could run this part of the system on a true colour 24-bit display, speed and memory overheads will be more manageable if you make do with a lower colour depth and resolution here. To see the results of your work you can then render any image to a new display. Typically, on an Amiga with no graphics card, you might use a 64 colour Hi-Res PAL screen or flicker-fixed interface for the main working (preview) environment and a Productivity HAM-8 display to view your pictures at each stage of processing. Of course, if you have a graphics card you could use just a single screen.

## What's in the box?

If you've never owned ImageFX and buy the whole package outright, you'll get the same disks, the same upgrade manual, plus the monstrous main manual, an inch-thick paper



◀ Here's the new interface running on a 640x400 DoublePAL screen in 256 colours. A graphics card display would be preferable and much faster. You can still render your images to alternative displays regardless of that used for the main interface.





▲ Here's an example of how just a few ImageFX processes can be put to good use. First of all a new sky was rendered with the new Clouds function. This was then switched with the original blue sky with a single mouse click from the CiseMette feature. Finally a couple of lightning bolts were rendered for good measure.

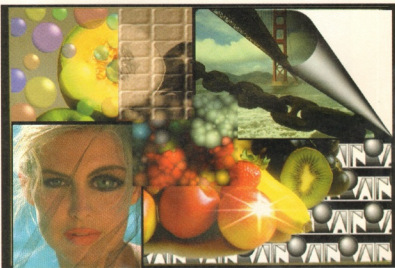
back book, hundreds of pages long, and profusely illustrated. It's one of the most impressive Amiga product manuals I have ever seen.

You also get the option of installing quite a few "extras" – these are public domain add-ons and plug-ins which Nova Design neither supports nor guarantees, and they include MPEG utilities, a PostScript loader, PAR-PEG loader, Photo CDROM loader, and others. Depending on your needs, you may want none, some or all of these.

Strangely enough, despite the preponderance of GIF images on the Web, ImageFX 3.0 does not include any GIF loader or saver. This, they explain, is due to restrictive Unisys licensing fees for the compression formulas used in that format.

However, you'll probably want to get loader/saver modules to handle GIF, and you can easily download one from any of the popular Amiga file sources out there and from Nova's own FTP site at [ftp.novadesign.com](http://ftp.novadesign.com).

See how many different processes you can spot in this one. ►



## Good new bits

### Windowed interface

The new style interface comes with floating "child" menus that can stay open after initial selections have been made. The older "Classic" interface is still there too. The new interface can open on the Workbench or on custom public screens. This works on stock Amigas but really shines when used on high resolution graphics cards.

### Multiple image windows

Multiple images can be opened and worked on at once on the same screen. You can even have multiple working views of the same image.

### Layers

This is a feature borrowed from the mighty Photoshop. Working with "layers" allows realtime compositing of a near-infinite series of images in a single window. You can adjust compositing methods on the fly, and reposition elements. Layers images can be saved in a new IFF/INGF format or in the Photoshop layered format.

### Loaders & savers

Many new loaders and savers are built in, including native Photoshop format.

### Improved previews

The effects preview windows have been vastly improved, with multiple sizes, zooming, and panning.

### CPU optimisation

The program has been re-optimized for each processor in the MC68000 family, including 060s.

### New effects

These include fractal clouds, scatter/shattering, a ray-tracing, bump-mapping water effect called Splash which can simulate raindrops, surf, even jelly, and a new page curling effect. All of these can be animated over time.

### FX Forge

This is an extremely flexible "hook" or plug-in which uses maths expressions to manipulate images in an infinite number of interesting ways.

Despite the best efforts of those pushing the PNG format as a replacement for GIF, that simply hasn't happened and the vast majority of web graphics you'll come across are either GIF or JPEG.

A complete install of the whole six disk suite will eat about 10Mb of hard drive space. This isn't bad, considering everything this package contains.



### Neatly ironed out creases

This latest revision of ImageFX has done a lot to iron out previous creases whilst making real progress in the features department. Sensibly Nova Design have not been shy of taking ideas from other image processing systems, most notably Adobe Photoshop in this case. Photoshop is widely regarded as the best desktop image processor you can buy, but it's only available for Mac and PC.

Most experienced Photoshop users would be lost without its system of 'layers', such is the power and flexibility it offers. ImageFX makes a passable first attempt at ripping this off, and why not? The system works by allowing you to stack any number of images on top of one another, with each image contributing in some way to an overall image (Photogenics uses a very similar system). This allows the user to quickly and easily experiment with different compositing ideas.

Now you can leave out as many menus as there's room for. ▶

Each component image can simply be faded to a specific level, or you can select from a range of modes such as Add, Subtract, Darken, Lighten and so on.

Hidden away in the Hooks drawer is another good new feature: FX Forge. This is an incredibly versatile effects plug in that comes with dozens of pre-configured settings. The results possible from FX Forge include a page curl effect, motion blur, fractal image rendering, abstract distortions, zooms, whirls... You can also tweak the sliders of any of these to get new variations, or even formulate your own from scratch (the latter is certainly not a task for the mathematically challenged!).

The upgrade's manual also lists half a dozen web sites where you can find thousands of other FXForge/Filter Factory effects to download, use, or modify.

### Effects

We're spoilt for choice now when it comes to effects processes. Old favourites like fire and lightning are joined by page curl, radar, Picasso and many others. Most of these come courtesy of the new FX Forge hook, a plug-in which comes with a string of pre-defined parameter settings and is also capable of loading in loads more. Here's just a small selection of them.





▲ FX Forge adds a whole new range of effects and is capable of taking plug-ins or having new ones written for it.

There are lots of other little improvements too. For example, the preferences requester sports some interesting new choices. Lots of user complaints about the too-small effects preview windows resulted in important enhancements: the preview windows now open in your choice of three different sizes, and you can zoom them in and out, and even grab a preview picture and pan/slide it around, depending on what part of your

main image you want to see an effect happen on, before you choose to apply it to the whole image.

These new features make the preview windows more of a useful tool instead of just something to squint at.

PowerPC support is absent from the main 3.0 release, but will be available soon in the form of plug-ins. Considering the time involved in processing large 24-bit images, it's a perfect candidate for PowerPC conversion.

## Conclusion

ImageFX is one of the few Amiga applications that's used professionally in the 'big wide world'. Apart from the reasons listed so far, one factor is its ARexx interface, which makes it possible to perform all kinds of batch image processing tasks which would otherwise drive a human operator mad. For example, NASA uses it to download and process images from its space probes.

ImageFX 3.0 is a monumental piece of work, and really a marvellous upgrade to an already impressive product. It can be approached on many levels, and will be useful for any Amiga owner who wants to create and manipulate computer imagery either just for fun, or for professional pursuits. This product is a true bargain, more so when you compare it to the price of similar products on other computer platforms. ■

Harv Lasher

## Prices and upgrades

£179.99 (new) £79.99 (from 2.6)  
£99.99 (from 2.1) £129.99 (from 1.5)  
Include first original disk with order

## Cycle gadget tip

In ImageFX 2.6 and earlier, you could double click on a cycle gadget and a pop up menu would appear with all its choices. This is very useful, especially on a cycle gadget with lots of choices. Due to popular request this feature has been replaced with standard cycle gadgets that work with Amiga Commodities such as CycleToMenu.

However, if you have the ClassAct GUI system installed on your Amiga, you can bring the pop-up menus back again. Simply add a new tooltip to your ImageFX 3.0 icon that reads exactly like this:

CYCLE\_GADGET=CLASSACT

## IMAGEFX 3.0 DEVELOPER: Nova Design Inc

**System Requirements:** Workbench 2.1+, 10MB hard drive space, 4MB RAM. Recommended: 68060 PPC, plenty RAM, graphics card

<b>Ease of use</b> .....	93%
Useful for beginners to graphics professionals. Interface is mostly logical and intuitive.	
<b>Performance</b> .....	95%
Very rich feature set, little is missing. Good 2nd party support. Performance varies with CPU model.	
<b>Value for money</b> .....	95%
Initial buy-in a bit pricey but upgrade pack is a bargain.	

**OVERALL**  
The best image processor goes from strength to strength

**95%**



# POWERUP



## LIGHT MY FIRE.



### CyberStorm PPC

180MHz, 200MHz & 233MHz PPC  
with 060/50MHz or 040/25MHz  
All with Ultra-Wide SCSI-3 Onboard  
Upgrade Models without 040 or 060 available



### Blizzard 603e Power Board

160MHz, 200MHz & 240MHz PPC  
with 060/50MHz or 040/25MHz

Designed for use with A1200 Tower Systems

**603e+ Model Has Onboard Fast SCSI-2**

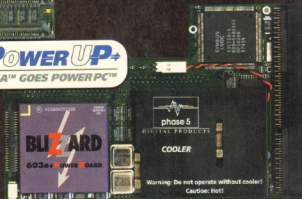
"The essential upgrade for all A1200 users"

"A superb blend of value and power"

"Not to be missed."

"A real bargain."

**94%**  
CU Amiga



Upgrades Available From Blizzard 1240T, 1260 & accelerators  
with socketed 040 or 060 CPU's. Please call for details & prices.

**CYBERVISION**  
**PPC**

& Blizzard Vision PPC  
graphics cards due shortly



## WHITE KNIGHT TECHNOLOGY

The UK's Largest Supplier Of Power PC Accelerators

Tel : 01920 822 321 Fax : 01920 822 302

Email : White\_Knight\_Tech@CompuServe.Com

P.O. Box 38, Ware, Herts., SG11 1TX, U.K.

For Pricing Information, See Our Main Advertisement In This Issue



# TurboPrint 6



■ Price: £39.99 ■ Developer: IrseeSoft ■ Supplier: Wizard ☎ +44 (0)181 303 1800

**Printing your fave pictures? Publishing your own magazine? This could be just the program you've been looking for.**

It's a familiar story these days: hardware manufacturers continue to innovate with better, cheaper, faster products, then release them with software for PCs and Macs, totally ignoring Amiga users. Last month's focus on digital cameras showed what can be achieved when Amiga people get on and do it themselves. It's a similar situation when it comes to printers.

This time it's TurboPrint that comes to the rescue, but unlike the current digital camera drivers which are still fairly basic affairs, TurboPrint is an incredibly well developed printer driver. In fact, to call it a printer driver is doing it quite a disservice.

TurboPrint 6 comes into its own when used with the new generation of photo realistic printers. The standard Workbench printer driver system only allows for output with a maximum of 4096 colours. This means that even if a custom Workbench printer Prefs driver was written for these new printers, they would still be unable to get the best out of the latest high resolution ink jet printers.

TurboPrint gets around the problem by ditching the Workbench printing system in favour of its own replacement for the standard 'printer device'. This is then combined

with specially written drivers for all the latest printers, and the results are stunning.

## Glittering Prize

The star of the show is a section of the TurboPrint system called Graphics Publisher. This lets you to set up a page of standard or custom dimensions onto which any number of images can be arranged prior to printing.

You can also enter text onto the page (either typed directly into a text box or imported from a file). This alone makes it possible to output any picture to your posh new printer in 24 bit colour. On a basic level, you could just load a picture, position and scale it to fit the page and then hit Print. More advanced applications include the output of thumbnail collections, contact sheets, or even full blown flyers and brochures designed and laid out with nothing more than the Graphics Publisher.

Anyone who has worked with large images will be aware of just how much memory they can use. If you want to output a picture with no visible pixelisation you need a very high-res image (monitors tend to blur pixels far more than hard copy print-outs). However, this doesn't mean you need acres of RAM to get good results, as

## New for version 6

- **Turbo Spool** - Prints in the background direct from your hard drive
- **Text function** - You can now enter text into the Graphics Publisher
- **Photo Optimiser** - Optional automatic colour balance correction
- **PowerPC support** - Drastically speeds up printing times for PowerUp'd machines
- **New printer drivers** - See text file "TurboPrinters.txt" on disk & CD for details
- **Improved UCR** - Finer control over UCR (multicolour black) output

TurboPrint comes with its own background printing system which uses the hard drive as temporary storage space - a kind of custom virtual memory system.

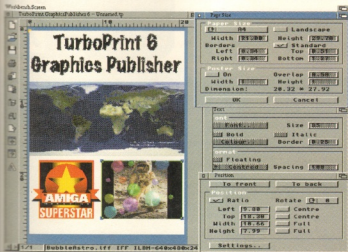
Moving with the times, TurboPrint now makes use of a PowerPC processor should you have one. Printing high resolution images can take quite a while, so this is a welcome addition.

## Conclusion

There's no debate. If you have a new high quality printer, you must have TurboPrint. To buy a printer on the level of the Epson Stylus Photo and not use TurboPrint to drive it would be madness.

Whether you just want to print out your favourite pictures, make giant wall posters or publish your own slick magazines and newsletters, TurboPrint is an essential purchase. ■

Tony Horgan



▲ The 'Graphics Publisher' lets you to output any picture to your printer in 24 bit colour.

## TURBOPRINT 6

**System Requirements:** Workbench 2 or higher ©  
printer Recommended: PowerPC, hard drive graphics card

<b>Ease of use</b>	95%
Basic configuration is simple but there are reasons of various tweaks on offer.	
<b>Performance</b>	94%
Output as good as your printer will allow, and these days that's pretty good!	
<b>Value for money</b>	88%
Cheaper than the last update with more features. You can't say fairer than that.	

**OVERALL**  
An essential companion to any modern printer.

**93%**

# TV-Amazing

■ Price: £89.00 ■ Developer: Grand ■ Supplier: Golden Image Ltd ☎ +44(0)181 900 9291

**It lets you watch TV and your Amiga's display on a VGA monitor, but is the TV-Amazing really grand?**

**T**he TV-Amazing may have a silly name, but it is a clever box of tricks. Basically, it is an audio/video switching unit with a VGA pass-through and a TV-tuner built-in. What this means is that with this device you can display and switch between, all on the one VGA monitor, your computer's video output, domestic television and two other video sources.

## Installation

The TV-Amazing is a modern-shaped box with various audio/video connectors, status LEDs and push buttons. It comes with a remote control, power supply and the necessary cables. It has connectors for two video inputs (one composite, one S-VHS), VGA in and out (to connect up to your computer's RGB port and to your VGA monitor), three stereo audio inputs (one for each video source), RF input (for the TV aerial), and composite video and audio output.

## In use

Once everything is connected up, the TV-Amazing is easy to use and works invisibly as far as your Amiga is concerned. It has essentially four modes of operation - PC, Video1, Video2 and TV - which may be cycled through by pressing a button on the unit itself or on the handset.

In PC mode the RGB signal from your computer is passed through the device to your VGA monitor. No signal is produced at the composite video output. This is the

default mode of the device while your computer is switched on.

In the Video modes a video signal is passed through from either the composite or S-VHS inputs to the video output. This signal is also scan-doubled and sent to the VGA monitor.

TV mode works similarly to Video except the signal comes from decoding the RF signal. In this mode the device is operated like a normal TV. It has an auto-scan facility to automatically tune in to different channels and the usual channel selection, volume, contrast, etc. controls. It is also compatible with cable TV.

However there is a flaw - at least as far as the Amiga is concerned. The TV-Amazing was designed for PC use, and, since PCs already produce a 31KHz RGB video signal, the VGA input to the TV-Amazing is not scan-doubled. This means you cannot display PAL or NTSC screenmodes with this device via the RGB cable. You must connect the Amiga's composite video output to the TV-Amazing's composite video input to be able to display these modes. Unfortunately, the picture quality that the TV-Amazing produces for composite video on a VGA monitor is of too



poor a quality for computer use. A standard video monitor like the 1084S generates vastly superior picture quality.

## Conclusion

The Grand TV-Amazing is an ingenious device, but it is not an all-in-one solution for the Amiga. Because it does not scan-double 15KHz screenmodes via RGB and because of the poor quality of the composite display, its use with these modes is limited. It will appeal to people that have restricted space and want to be able to display everything on one monitor, or to those who only own a VGA monitor. ■

Richard Drummond

## TV-AMAZING

### System Requirements:

Any Amiga

**Ease of use** 90%  
If you can operate a TV, you can use this.

**Performance** 65%  
Let down by poor quality composite video display.

**Value for money** 90%  
Good, but not ideally suited for Amiga use.

**OVERALL**  
Good, but not ideally suited for Amiga use.

**75**

## Why do you need a scan doubler?

A standard Amiga has versatile video display capabilities and supports many different screenmodes. The problem is finding a high quality monitor at the right price which will display as many of these modes as possible. There are three types of RGB monitor that will work with an Amiga.

### Video monitors

This is the most commonly used type of monitor and has a horizontal scan rate of 15KHz. Monitors that fall into this category include the Commodore 1084S, the Philips CM8833-II and the humble TV set.

**Pros:** will display PAL and NTSC screenmodes, the default and most commonly used modes on the Amiga; compatible with video equipment, e.g., VCRs, genlocks; inexpensive.

**Cons:** maximum display size of 640x256 and poor definition, hence unsuitable for text display.

### VGA monitors

This type of monitor is used with just about every PC and has a standard horizontal scan rate of 31KHz. They can be connected to an Amiga with a 23to15pin VGA converter (available for about £15), but the problem with these types of moni-

tor is that generally they will not work with standard Amiga screen modes. However, there is a monitor driver supplied with Workbench called VGAOnly that "tweaks" some of the other drivers to work with VGA monitors. With this, for example, the Multiscan and Euro72 productivity modes get increased horizontal frequencies of 31KHz, high enough to work with any VGA monitor.

**Pros:** cheap, high quality monitors readily available; rock solid, high resolution display; compatible with graphics cards.

**Cons:** will not work with a lot of Amiga software: e.g. the early startup screen, bootup errors, alerts and most games require a 15KHz screenmode.

# Micronik Scan Doublers

■ **Price:** £64.95 (A1200 Internal) £74.95 (Any Amiga external)  
 ■ **Developer:** Micronik ■ **Supplier:** Blittersoft ☎+44(0)1908 261466

**They are officially endorsed by Amiga International, but are Micronik's new scan doublers worthy of that prestigious Boing Ball?**

**T**hese scan doublers from Micronik are attempted solutions to the problem of connecting a decent monitor to your Amiga. There are three versions: an internal A1200 version which fits onto the A1200's motherboard; an external version which plugs into the RGB port of any Amiga; and a version on a ZorroII card (which is not reviewed here) to fit a Zorro video slot.

## Installation

The A1200 internal version of the scan doubler consists of three small pieces of circuit board which clip onto three of the chips on the A1200's motherboard.

This is fine if you already have an exposed motherboard, say, in a towered A1200, but otherwise it is a hassle. You must take the case apart and remove the floppy drive and the electrical shield before installing it. The main piece of this scan doubler fits underneath the internal hard drive if you have one. It is a tight fit. You will be

lucky to get the shield back on, especially if you have a bigger 3.5" drive.

The external version, however, is simplicity itself to fit. It consists of a three-inch-long oblong box with a 23pin video plug on one end – which connects to your Amiga's RGB port – and a 15pin VGA plug on the other – which connects to your monitor. You cannot go wrong.

## In use

Both these scan doublers operate transparently to your Amiga. There is no software to install. The net result is that you can display PAL and NTSC screenmodes as well as those nice productivity modes on your VGA monitor. The quality of the display is dependent on the quality of the monitor, but the difference between displaying PAL on a video monitor and on a VGA monitor is huge: on the VGA you get a crisp, steady image.

## Amiga Multiscan monitors

A multiscan monitor is one that can sync to a range of different horizontal frequencies. Amiga multiscans available include the Amiga M1438S and M1764S.

**Pros:** can display all Amiga screenmodes; compatible with graphics cards.

**Cons:** expensive; generally poor quality, e.g. M1438S has poor contrast and brightness.

(PC multiscan monitors are also available but generally do not sync low enough to display 15KHz modes.)

## Scan doublers

A scan doubler is a device which takes the video signal from the Amiga and doubles

the horizontal frequency of the 15KHz signals to 31KHz and passes through any other frequencies. This allows you to display PAL and NTSC modes (as well as the productivity modes) on most VGA monitors.

Note that, for example, a PAL screenmode (15.6KHz) is doubled to 31.2KHz, which is actually less than the VGA standard of 31.5KHz. So it is possible to find VGA monitors that will not be able to display even scan-doubled PAL modes. It pays to shop around and to examine the specifications of a monitor before you buy it. Note also that a scan doubler is not the same as a de-interlacer. Interlaced screenmodes will still flicker.



There appears to be little difference in the quality of the display produced by either of these devices, but there is a tiny flaw with the internal version. It does not reproduce the black border effect produced by hacks such as MCP. I assume this is because by plugging directly onto the motherboard it bypasses your Amiga's video generation route. A small niggle, but I'm rather fond of black borders.

## Conclusion

The Micronik scan doublers are excellent. They provide a simple and elegant way of connecting your Amiga to a high quality monitor. The price may seem excessive, but compare the price of one of these and a good VGA monitor, with that of the relatively poor quality Amiga M1438 scan monitor and you'll be laughing. I can see no good reason to buy the internal A1200 version: the external version is unobtrusive and works better, anyway; if you have an A1200 in a tower case and are obsessively neat, the internal version may be preferable. ■

Richard Drummond

### EXTERNAL SCAN DOUBLER

**System Requirements:** Any Amiga

**Ease of use** ..... 95%  
 The ultimate in Plug'n'play.

**Performance** ..... 92%  
 Works flawlessly.

**Value for money** ..... 88%  
 More expensive than the internal one, but still good value.

#### OVERALL

Well deserving of that exalted Boing Ball

**93%**

### A1200 INTERNAL SCAN DOUBLER

**System Requirements:** Amiga 1200

**Ease of use** ..... 65%  
 A real pain to install, but works invisibly thereafter.

**Performance** ..... 89%  
 As good as the external version – except for the black border niggle.

**Value for money** ..... 90%  
 Good – but save yourself the hassle and buy the external version.

#### OVERALL

An inexpensive route to a high quality display.

**88%**





# Sirius Genlock



■ Price: £599 ■ Supplier: White Knight ☎ 01920 822 321

As the name and price tag imply, the Sirius Genlock is a high quality, professional device. It has a host of features and effects to enable you to produce superb video output.

**W**hat a genlock allows you to do is; synchronize and mix your Amiga's video output with an external video source, say a camcorder or video player. This is called keying. In conventional keying, the external video source is displayed instead of the Amiga's background colour. This lets you overlay graphics on a video stream, perhaps for titling purposes.

The Sirius also has other keying operations: alpha channel keying makes certain the Amiga's colours become 'alpha colours', consisting of 50% video image and 50% computer image. This can be used, for example, for anti-aliasing effects to blur the borders of objects or for semi-transparent frames. And bluebox keying, which is where the video picture is keyed over the computer picture. Either all colours of a certain luminance in the video (luma keying) or a specific colour (chroma keying) will show the computer image. This is a well-known effect from TV weather forecasts, etc.

The Sirius also features an inverse keying mode (which can be applied to all the above modes), image controls (to correct the white balance, contrast or luminance of your video source), and a two-channel audio mixer and filter.

## The hardware

The Genlock is a console-shaped box with an array of membrane keys, feedback LEDs, an LCD display, slider controls and various ports for connectors – and looks deceptively toy-like for £600. It comes supplied with all the necessary leads to connect up to your computer, a power supply, software and a manual, but comprehensive manual.

The console is well laid out and the controls are simple to use. Apart from selecting the bluebox keying colour, all functions may be operated from here. The keys select the various functions and modes and are separated into 6 banks: status, image, keying, fade, audio and sound. The four sliders control fading – two video faders, one for the computer image and one for the video; and two audio faders, one for each channel.

In manual fading mode the video faders control the level of each video source (from

0 to 100%) in the final output; in auto fading they set the fading time for each source (from 0.1 to 20 seconds). The audio faders set the volume of each audio channel in the audio output. Various modes exist for the audio fading, including the ability to link audio channels with video sources enabling them to be faded in conjunction.

## Software

Although it is possible to use the Sirius Genlock from its console, when it is controlled by your Amiga (via a standard serial cable) you realise its full power.

The software supplied for this purpose is a commodity called SeriusHotkey, which is really just a GUI version of the console controls. It's not pretty, but nevertheless it is functional.

The genius of the software is the hot key support and the ARexx interface. Hot keys permit many features of the genlock to be controlled from your computer's keyboard without actually having the SeriusHotkey window open; with this, for example, you can perform fades from PPaint. The ARexx port allows an even greater degree of control from other applications. It is possible, say, to create a script in Scala to do fades and effects on cue.

This takes a lot of the hassle out of video editing; otherwise it requires just too many hands to operate a computer, camcorder, video recorder and genlock simultaneously.

## Conclusion

The quality of output from the Sirius is excellent; There is no visible or audible noise produced during operation – although to achieve good results, a high quality video source is needed. In addition, getting good results using bluebox keying is difficult and time-consuming.

Having said that, the Sirius is a first class product. It will take patience and practice to get professional results, but I have no doubt that with the Sirius Genlock it is possible. ■

Richard Drummond



## Connectors

RGB in – video from Amiga  
Video in (composite and Y/C)  
2 x audio in (phono)  
Microphone in (3.5mm stereo jack)  
Serial in (9 pin) – for software control  
RGB out – to Amiga monitor  
2 x video out (composite and Y/C) – mixed video output  
audio out (phono) – mixed audio output  
Power in (12V)

## SIRIUS GENLOCK

Developer: Electronic-Design

### System Requirements:

Amiga 502+, 505 monitor

Ease of use	85%
Easy to use, difficult to use well.	
Performance	92%
Outstanding features and results.	
Value for money	81%
Expensive. But you get what you pay for.	

### OVERALL

Superlative video output – at a price

**90%**

## Latest CD Games

**SHADOW OF THE 3rd MOON**  
3D light simulator featuring State of the Art graphics, sound and animation. Highly Rated Worldwide! It's like no other game on the Amiga.



Requires demo and at least 500 megabytes  
Order: C0562x £19.99



**CIVILIZATION**  
"Build an Empire to Stand the Test of Time". Discover New Technologies - Build Wonders of the World - Determine the Fate of your People. No 2 Best game ever!

Order: C0454x £19.99



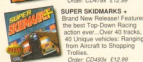
**ULTIMATE GLOOM**  
"Gloom 2" The Ultimate version of Gloom. The Amiga's answer to Doom. Brilliantly Fast 3D graphics and BLCDROM like you've never seen in a game before.

Order: C0472x £12.99



**STREET RACER**  
The Amiga Version of the World Famous PlayStation game. Wickedly fast graphics.

CD Version requires demo  
Order: C0476x £12.99

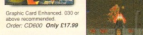


**SUPER SKIDMARKS**  
Brand New Release! Features the best Top Down Racing action ever... Over 40 tracks, 40 unique vehicles. Ranging from Aircraft to Shopping Trolleys.

Order: C0458x £12.99



**DOOM TRILOGY (3 CD'S)**  
Suitable for any AGA Amiga with 1mb ram.



Graphic Card Enhanced. 330 or above recommended.  
Order: C0460x Only £17.99

**NEMAC IV**  
The Ultimate 3D "doom" clone featuring stunning fast 256colour - 3D graphics and awesome sound effects. Rated 90%+ Worldwide.

Order: C0477 £19.99



**BIO RED ADVENTURE**  
After the success of the PC version, The BIG RED ADVENTURE is now available on Amiga CD, featuring great high-res graphics.

Order: C0488 £19.99



**VIRTUAL KARTING 2**  
Forget those boring "flat" 3D-racing games. Virtual Karting is the fastest Karting Simulation available. Suitable for any AGA Amiga but on an O30 it really moves!

Order: C0587 £14.99



**PINBALL BRAIN DAMAGE**  
Pinball Brain Damage is an exciting new AGA only Pinball simulation, featuring Super-high-res graphics, multi ball, Multi Player and tons of other features.

Order: C0486 £19.99

## Also Available!

**Foundation CD £27.99**  
On-escapes CD £27.99  
Quake Amiga CD £29.99  
Genetic Species CD £27.99  
Final Odyssey CD £27.99  
Unquid CD £27.99  
Flyin' High CD £14.99  
Cannon Fodder CD £4.99  
Theme Park CD £12.99

## Audio CD's

**FILTHIRST PARTY ALBUM**  
14 Adult audio tracks including Her Santa Claus, Who the 711? Is About, The Whiffer Song etc.  
Order: M0501 £9.99

**BACK IN TIME**  
15 All time classic CD's taken re-mixed into Audio CD. Tracks by Ringo, Neil Young, etc.  
Order: M0504 £12.99

## Productivity



**DELUXE PAINT 5**  
Deluxe Paint 5 is a product is the envy of the whole PC world. It's features and ease of use are not matched by any other graphics package either on the Amiga or PC. Deluxe Paint 5, the latest release, is no exception. Deluxe Paint 5 is without a doubt the fastest paint package available on the Amiga. It's unique palette feature supports virtually all the Amiga's graphics modes. Deluxe Paint 5 includes the most powerful yet simple to use animation feature you could imagine. Direct support for all the Amiga's animation formats are included as well as of course the industry standard IFF picture format. Includes full printed manual.

**EXCLUSIVE!** Supplied with a bonus CD containing Colour Fonts, Clipart, Pclips etc.  
Order: C0499 Only £17.99



**SOUND EFFECTS VOL.1**  
Over 15,000 files. Includes sound effects from all over the place, including Animals, Nature, Horror, House, Crash, Explosions, etc. etc.

Order: C0165x £9.99



**BLITZ BASIC 2.1**  
A next generation BASIC with features borrowed from PASCAL, C and others. Program with any type of software with more power than ever before. Complete with full manual. Also available on floppy disk.

The Special CD version also contains the complete series of BLIMM (Bltz User Manuals) **EXCLUSIVE!** Supplied with free bonus CD containing source-code, graphics, fonts & samples etc.  
Order: C0202 £17.99



**ELASTI DREAMS**  
Contains both PPC and Amiga versions of the Amiga's answer to KAI's Power Goo. Powerful graphics manipulation tool. See press for review.

Order: C0004 £49.99



**ART STUDIO PRO**  
Image calculator, converter and processor. Supports JFF, ANIM, AVI, MPEG, MOV, FLC, GIF, TIF, PCX, PHOTO CD and all the rest, including TIF (multiresolution image format). Full page are available on request.  
Order: C0003 £44.99



**3D OBJECTS**  
Thousands of DXF compliant 3D objects suitable for use with either Lightwave or Imagine. All popular categories included like: Space Furniture, Buildings, Objects, etc. etc.

Order: C0245x £7.99



**MAGIC WORKBENCH**  
Magic Workbench Enhancer is a stylish Amiga CD-ROM containing not only Magic Workbench but also around



10,000 new Workbench icons, Desktop icons and Desktop icons. Entrance Workbench even more.  
Order: C0167x £14.99



**DESKTOP VIDEO CD VOL.2**  
Amiga Desktop Video CD volume 2 contains hundreds of megabytes of Video related backgrounds, fonts, samples, and clip images. The CD also includes a full version of Scale.

Order: C0454x £9.99



**WORLD OF CLIPART PLUS**  
World of Clipart Plus is a double CD-ROM containing 40,000 mono and colour clip-art images. It includes over 100 categories including: animals, people, vehicles, transport, food/drink, zodiac, smas, cartoon, music, computers, technology, babies, women, men, dogs, cats, birds, office equipment, trees and dozens more.

Order: C077x £14.99



**20,000 NEW GRAPHICS**  
This comprehensive resource has everything you need to help you develop a professional looking web site. Includes over 7,000 selected GIF's, as well as 13,000 fast-loading buttons, flags, banners, dividers, symbols, bullets, arrows, alphabets and more. **ALL ROYALTY FREE!**

Order: C0584 £9.99

From only £2.99

## Games Titles



**01 Vital Life £2.99**  
12 Marvins Marvellous Adv £2.99  
14 Guardian £2.99  
15 Chaos Engine £2.99  
17 Alfred Chicken £2.99  
19 Chuck Rock £2.99  
22 John Barnes Football £2.99  
23 Lead Ninja £2.99  
31 Total Clobber £2.99  
34 Oscar & Diggers £2.99  
42 Video Creator £2.99  
44 International Karate £2.99  
50 Super League Manager £2.99  
51 Butter & Spreads £2.99  
53 Naughty Ones £2.99  
54 Clockwiser £2.99  
C050 Fields of Glory £14.99  
C050 Cannon Fodder £14.99  
C049 Super Skidmarks £12.99  
C0563 Simon the Sorcerer £14.99



Order: C0497 £17.99



Order: C0497 £17.99



Order: C0497 £17.99



Order: C0497 £17.99



Order: C0497 £17.99



Order: C0497 £17.99



Order: C0497 £17.99



Order: C0497 £17.99



Order: C0497 £17.99



Order: C0497 £17.99



Order: C0497 £17.99



Order: C0497 £17.99



Order: C0497 £17.99



Order: C0497 £17.99



Order: C0497 £17.99

## Applications



**MINI OFFICE**  
This superb easy to use office is great for the home and small businesses. It includes a Word Processor with a spell checker, Database Spreadsheet and more.  
Order: AM007x £17.99



**BLITZ BASIC 2.1**  
Next generation BASIC with features borrowed from PASCAL, C and others. Program any type of software with more power than ever before. Complete with full manual. Includes full manuals.  
Order: C0497 £17.99



**DELUXE PAINT 5**  
Deluxe Paint 5 is without a doubt the fastest paint package available on the Amiga. Deluxe Paint 5 includes the most powerful yet simple to use animation feature you could imagine. Includes full manuals.  
Order: C0497 £17.99



**CRAFT FOR AMIGA**  
Adds over 120 new commands to Amiga and Amiga Professionals for every Amos user.  
Order: CRAFT £9.99



**INTER SPREAD**  
InterSpread supports over 1000 LUCASfilm cells. It's easy to use, is presented graphically using pie and bar graphs etc.



Order: INTERSPREAD £5



**AM-PC LINKUP**  
Network your Amiga up to a PC to make use of ALL it's drives, including CD-ROM, Zip, Hard disk, High-Density Floppy etc. etc.



Order: AM-PC LINKUP £17.99



**MOUSE-IT**  
Allows connection of virtually any mouse, Trackball or pointing device to the Amiga. Plugs into your serial port.



Order: M0507 £7.99



**INTER BASE**  
Quick and easy to use. InterBase the perfect solution when it comes to Amiga databases, easily transfer data from interbase into other supported applications, print labels etc.  
Order: INTERBASE £5



**AVIS PROFESSIONAL**  
The fastest and most powerful AVI player for the Amiga, includes support for AS200, A4000, A1000, A4000 and A5000.



Order: AVIS £500



**BURN IT V2.1**  
BurnIT is the Amiga's most powerful CD-R burning software. Can create audio and data CD's. Easy to use and supports 60- A4000 / A1000 / A4000 and A5000.



Order: BURNIT Professional £24.99



**TURBO PRINT 6.01**  
The ingenious printer driver system TurboPrint prints the full colour of your screen directly from your Amiga's workpage. Print at the very quality! (Supports all the latest printer models)  
Order: TURBOPRINT £39.99

## Adult

**ADULT SENSATION VOL.1**  
4000 high quality GIF Images.  
Order: C031x £7.99

**ADULT SENSATION VOL. 2**  
4000 Images, 70's images, 80's games, Animations, Adult stock, Adult music and samples and more.  
Order: C0115x £7.99

**ADULT SENSATION 3D**  
1000 Adult 3D images, complete with 3D glasses. Watch yourself with this one!  
Order: C0145x £7.99

**ADULT SENSATION VOL. 5**  
Volume 5 consists of dozens of Adult related games like: Strip Poker, Tetris, Sex, Adult Fantasy, Adult Night Life, etc.  
Order: C0567 £19.99

These "Adult" titles are strictly for purchase by Adults in the age of 18 Only. We hold over 300 Adult titles in stock. So please call for a complete list.



# AWeb-II 3.0



■ Price: £29.95 (check website for updates) ■ Available from: Blittersoft ☎ 01908 261466 ✉ www.amitrix.com/aweb.h

**AWeb-II 3.1 is packing serious heat and the competition is scrambling to respond. Has the former number 3 taken top honors?**

**T**he August '97 issue of CU Amiga marked the last Battle of the Browsers, and AWeb-II 3.0 (the -II reflects the commercial, rather than the shareware version) came in a strong third. But third is last in this race. Yvon Rozijn, author of AWeb, has responded strongly to this result.

Secure transfers are now available through the MiamiSSL system. Although this does require you to own a registered version of Miami, the investment is quite possibly the best you'll ever make for your Amiga.

SSL gives you access to a world of security, and while that doesn't eliminate some of the other dangers of ordering product over

the web (SSL doesn't protect you from outright fraud on the part of the seller), it's a valuable peace of mind. The graphics handling is vastly improved. One of the major complaints of last year's review was AWeb's lack of progressive image loading and AnimGIF support. These have now been fixed, although this requires installing plug-in modules. The AnimGIF module is shareware, but reasonably unobtrusive. The other modules allow progressive JPEG,

► GIF anims, progressive loading, the works



or the network is merely thinking about whether it wants to honour your request. I'd prefer a less stingy click detection.

## Living in AWeb

While I'm not personally a big believer in it, Netscape is designed so that, if you so chose, you could use a single program for most of your online activities; browsing, reading e-mail and news, FTPing, and so forth. AWeb has the most well-rounded assortment of "add-ons" to follow this example. You can comfortably use AWeb for newsreading and handling all of your e-mail. If you want to configure AWeb to do it, there are a few extra steps and you'll want to have your ISP information handy, but after that it's very smooth sailing.

JavaScript, no goofy layout and image handling problems like Voyager, better cycle lists and (marginally) more frequent updates than iBrowse. AWeb-II 3.1 has climbed back up the ladder. It may not be good enough to be undisputed top dog, but it's worthy of respect. ■

Jason Compton

## AWEB-II 3.0

System Requirements: 2 Megas memory (4 highly recommended), OS 3.x.

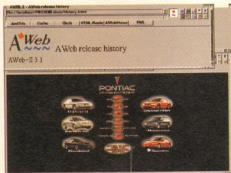
Ease of use  
Two kind about exceeding those plugies 83%

Performance  
Definitely back in the game 93%

Value for money  
Competitively priced 87%

OVERALL  
Worthy of the Superstar for a very important innovation

90



▲ Javascript makes shopping for a car online more fun

It's been a while since AWeb was responsible for a groundbreaking first. His original AWeb was arguably the first truly usable browser on the Amiga, but it's been iBrowse and Voyager who have dominated development in recent times – the usual pattern is that Voyager comes out with a feature first, then iBrowse implements it in a stable form. Now AWeb leaves them both choking, with the first Amiga JavaScript support.

JavaScript, not to be confused with Java, allows webmasters to do a number of clever things on their websites that conventional HTML can't do comfortably or at all. For example, if you want to see that new car in black, just put your pointer over the black on the palette, and lo and behold, the car turns black. Cycle gadgets can be made to automatically react to a selection, rather than waiting for you to hit a "go" button.

They're gimmicky things, but like frames, more and more sites are using them and it's very difficult to "browse around" JavaScript. If your browser doesn't support it, many sites won't work at all. And for the time being, AWeb-II is the only way to view them.

## Righting the Wrongs

There were some vital features missing from AWeb-II 3.0, and most have been added.

GIF, and PNG loading, just like the other two browsers on the market.

## The Feel of AWeb

In part because it is non-MUI, AWeb has a different look and feel than its competition.

One of the more obvious changes is the lack of cycle gadgets, common to most browsers. AWeb instead presents a scrollable list. And while the last review railed against this, it can be a real benefit. In iBrowse, if you have a cycle gadget with a list larger than can be shown on the screen, iBrowse will simply not show the list at all – you have to cycle blindly. Voyager has gained the ability to bring up a pop-up window similar to AWeb's. On other platforms, the browsers tend to bring up a scrollable list. So while AWeb may not be "standard", it's more effective than an alternative.

Another major issue is as basic as clicking links – AWeb is amazingly fussy about it. On most browsers, you can casually click links on the fly. But AWeb doesn't like you to move the pointer around much, particularly if you leave the confines of the link while clicking. Because it doesn't have as violent of visual changes as iBrowse and the loading gadget is fairly small (unlike the huge "Knight Rider" progress bars of the MUI browsers) it's often hard to tell if you've missed the link



# MasterISO V2

■ Price: £59.95 \$119.00CAD ■ Developer: Asimware ■ web: <http://www.asimware.com>

☎ +1 905 575 1042 UK – Blittersoft ☎ +44 (0)1908 261466

**Asimware upgrade their ageing CD-R software for CD-RW support – amongst many other things. The features list is very impressive – does the software match?**

**A**simware have developed a reputation for producing very professional Amiga software. MasterISO reigned king of the Amiga CD-R packages for a while largely because it was the only one to do all the necessary things. Time, and the growing popularity of CD writers, took their toll and soon young upstarts MakeCD and BurnIT were making MasterISO look distinctly dated. The latest release of MasterISO seeks to recover lost ground.

Extensive use of click tabs, pop-up and pull down menus, radio buttons and list gadgets makes the front end clean and straight forward – a major improvement over the horrendously ugly V1. It is not exactly enough to make MasterISO what you would call easy to use, but that is the nature of the rather complex beast rather than a failing in presentation.

## Feature packed.

In terms of feature support, MasterISO V2 is extraordinarily extensive; for control of every aspect of the CD writing process, it is hard to see where Master ISO misses out. Aside from TAO and DAO support, it covers ISO9660, Rockridge and Joliet extensions with volume information in each extension fully editable. CD-RW comes in for full coverage including disk erasing, and the CDDA writing system is impressive with on the fly conversion from MAUD, 8SVX, SampleRate HDP, AIFF, WAV and Studio16 formats, along with features like mono file fusing and auto sample rate conversion. There are read ahead buffers, multiple copy writing for "jukebox" systems, performance measurement and even – an Amiga first – firmware upgrade support, although at the moment for Yamaha drives only.

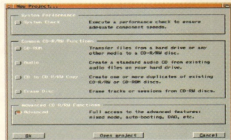
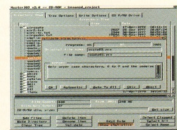
The main options allow you to select Erase CD-RW media, copy from a CD-ROM drive to a CD writer, handle audio disks or handle data disks, or run basic performance checks on your hardware. The data screen presents you with a tree structure builder for putting together the directory tree of your

disks. The presentation is excellent within the limits of the GUI system (looks like ClassAct), and in theory this allows you to build the structure of the CD you are writing by designing a layout of files from any number of sources. In practice there didn't seem any way to copy a directory straight into a tree, instead a new directory has to be made and then the target directory opened from the file requester. Any nested sub directories are copied fine, so this is an annoyance rather than a fatal flaw. Support for ISO 9660 and all the main file extensions is superb and well configured, with a comprehensive validation system to ensure that the file names and extensions are valid under the selected file system. An odd quirk in the GUI can send the progress bar into the thousands of percent while this operation proceeds, but don't worry, it doesn't take long.

The Audio write section works very simply, allowing tracks to be added on a track by track basis, accepting various file formats for on the fly translation as well as gap insertion and direct DOS file CDDA reading.

## Direct control

If you need something a little more complex, the advanced options open a whole lot more control, introducing direct track by track control of the disk structure, mixed audio/data structuring and Disk at Once mode. This makes disk creation very flexible but also very complex; you will have to know about the legal ISO index structures. Most of what you need to be left to the simple options,



▲ The options screen. Grey, but functional – and a big improvement over the last version.

but if you want to try something more complex, Asimware help you out with an excellent manual.

The 230 page instruction manual manages to be not just a guide to using the software but a reasonable introduction to the theory of CD writing as well. It repeats a lot of the information, because it ensures that everything you need to know is covered under each topic. This makes using the software that much easier, because you don't have to hunt around the manual cross-referencing things. If it had an index I would have no complaints; as it stands, it is still one of the best manuals I've seen in ages.

MasterISO is an excellent piece of software in many ways, but let down by a few quirks in the GUI. The professionalism, level of support offered and completeness is impressive, particularly as it is very reasonably priced. I am not sure it is the package I would choose if I just wanted to back up data, make the odd shareware collection or chuck a bit of audio on a shiny disk, but for producing commercial CDs the extension support and validation could be invaluable. ■

Andrew Korn

## MASTERISO V2

System Requirements: OS2 + 4MB Fast HB, supported ATAPI or SCSI CD-RW. EMDA/IDA, SCSI, ASIMCDFS and 16MB for advanced features.

**Ease of use** ..... 80%  
Good manual, but tricky subject. Some GUI problems.  
**Performance** ..... 93%  
Feature packed and extraordinarily comprehensive.  
**Value for money** ..... 87%  
Professional software at home prices.

**OVERALL**  
A great all round package.

**88%**

# Power Digital Camera



■ Price: £99.99

■ Developer: Power Computing ☎ 01234 851500

**Fast developing a reputation for getting you there as cheap as possible, Power's latest gets you into the world of digital photography for under a ton.**

**D**igital photography seems to be really taking off on the Amiga at last. The Power Computing digital camera not only promises trouble-free digital photography, it does so at a very tempting price.

Although you can buy yourself a digital camera from a camera shop and either use one of the shareware software packages or buy the commercial offering from Versalia, getting a full package like this should ensure that everything actually works. For your hundred pounds, Power Computing supply you with a camera, all the cabling you will need, a power brick to save on batteries when using the camera near a power point, and the software necessary to download the images from your camera to your Amiga.

The first test is to get the thing up and running – this, the Power Camera passes with flying colours.

## Simple software

The software comes with a very simple installer, and follows the trend with a very simple front end. A cable and converter link the camera to the serial port on the back of your Amiga – only a few minutes to set up.

The software presents a straightforward GUI on your Workbench, which really needs no instructions. Click a button gadget and it reads the number of shots in the memory card. Any or all of these can be downloaded and saved to disk as a JPEG, PNG or IFF24, or displayed on screen. The software can also tell the camera to take, and has a basic timer function. You can set the download speed for the serial port, but you won't get much luck above 19200 baud using a standard Amiga serial port. Luckily you can choose device driver, permitting faster downloads for owners of Surf Squirrels or similar fast serial ports.

It's always a pleasure to use software as well laid out as this, but in part that can be put down to the simplicity of the task it is performing. I would like to have seen multiple

settings on the timer for time lapse photography, an ARexx port, and a facility to display a thumbnail of downloaded images – but at this price you can't expect all the frills. It does what it sets out to do well and simply, which is more than you usually get when you go bargain hunting.

## Colour me bad

Unfortunately the end result is not as impressive. The resolution of the camera is a respectable 640 by 480, more than you would expect at this price point, but the ultra low grade optics and the cheap electronics take their toll. There are two settings for image quality, to allow either 16 "high grade" or 27 "standard" images to be saved on the memory card, but even at the higher grade, the images are soft and indistinct in comparison to even some lower resolution cameras. Colour balance is pretty poor too: the camera suffers more from the ill effects of different forms of lighting than more expensive cameras do. As a result, images taken under fluorescent light undergo colour splitting to green and magenta, while under tungsten light



▲ A sample image from the Power camera

everything goes brownish.

The Power Camera system is the cheapest way you can possibly get into digital photography, and comes packed with features, but when you pay this little you shouldn't expect miracles. If the image quality was great as well, I'd be sending bottled water to Power Computing for them to turn in to wine. If you can live with the image quality then you'll be very happy indeed, if you need better quality then look elsewhere – but be prepared to spend a fair bit more. ■

Andrew Korn

## Live and Direct

The camera used by Power Computing is the VDC100 from well-known budget scanner manufacturer, Mustek. The Mustek VDC100 sports a dual aperture f2 and f8, and a little macro lens for close up work, and a simple viewfinder. There is no flash.

Matching much more expensive cameras, the VDC100 has a composite video out, allowing it to be connected to TVs. You will need a TV with direct video input, and if it is not NTSC capable, output will be in black and white. This great feature allows your camera to double up as a simple video camera as well as displaying previews of recorded images. Output to the TV oddly seems better than the final output quality, perhaps because of the smoothing effect of the slightly blurred TV image. This is a welcome feature – it certainly livened up a dull CU Amiga planning meeting when we found it worked with our video projector.

## POWER DIGITAL CAMERA

Developer: Power Computing

**System Requirements:** OS 2.05 or better; 1 MB Min, 64020 + 2MB or better recommended

**Ease of use** ..... 96%

Hard to see how it could be much easier.

**Performance** ..... 64%

Great software, great features, but very low image quality.

**Value for money** ..... 94%

Great value.

### OVERALL

Easy to use, fun and very, very cheap – but results don't impress

**81**

# White Knight Technology

AMIGA & Desktop Video Specialists  
P.O. BOX 38, WARE, HERTS, SG11 1TX, U.K.



PHONE  
**01920  
822 321**  
9.30 - 5.30 Mon - Fri

Fax 01920 822 302

E-mail  
White\_Knight\_Tech  
@CompuServe.Com  
Next Day Delivery From Just £ 5.00

WE ACCEPT  
Mastercard  
Visa, Delta  
and Switch  
2.5% Surcharge  
on Credit cards.  
Net Switch / Delta

Prices INCLUDE 17.5% VAT

## POWERUP



## LIGHT MY FIRE.

Buy with confidence from the UK's Largest PPC Supplier



A1200T



160Mhz no 040/060	£ 235
160Mhz with 040/25	£ 245
160Mhz with 060/50	£ 475
200Mhz no 040/060	£ 289
200Mhz with 040/25	£ 299
200Mhz with 060/50	£ 529
240Mhz no 040/060	£ 355
240Mhz with 040/25	£ 359
240Mhz with 060/50	£ 599

**Blizzard 603e  
Power Board**

2 x 72Pin SIMM Slots.  
Requires Tower cased  
Amiga 1200. Socket  
for new BlizzardVision  
PPC graphics card.  
Note: the 603e has no  
SCSI-2 interface and  
Cannot be upgraded.



A1200T



160Mhz no 040/060	£ 289
160Mhz with 040/25	£ 299
160Mhz with 060/50	£ 525
200Mhz no 040/060	£ 345
200Mhz with 040/25	£ 355
200Mhz with 060/50	£ 589
240Mhz no 040/060	£ 409
240Mhz with 040/25	£ 415
240Mhz with 060/50	£ 649

**Blizzard 603e+  
Power Board**

Specifications as 603e.  
Also requires Tower  
cased Amiga 1200.  
Onboard high speed  
DMA SCSI interface.  
Various SCSI cables  
available, up to time  
of 603e purchase.



A1500/2000

180Mhz no 040/060	£ 539
180Mhz with 040/25	£ 579
180Mhz with 060/50	£ 769
200Mhz no 040/060	£ 639
200Mhz with 040/25	£ 679
200Mhz with 060/50	£ 859

**Blizzard 2604e+  
Power Board**

Available shortly - Call  
White Wide SCSI  
interface and socket  
for CyberVision PPC.

## CYBERSTORM PPC

A4000/4000T/3000/3000T\*

With Ultra Wide SCSI interface and  
socket for CyberVision PPC. 4 x 72  
Pin SIMM slots (requires pairs of  
matched SIMMs). Ultra Wide cables,  
adapters and terminations available.  
\*A3000/3000T requires minor modification.

## CYBERVISION PPC



180Mhz no 040/060	£ 455
180Mhz with 040/25	£ 495
180Mhz with 060/50	£ 679
200Mhz no 040/060	£ 535
200Mhz with 040/25	£ 575
200Mhz with 060/50	£ 759
233Mhz no 040/060	£ 579
233Mhz with 040/25	£ 619
233Mhz with 060/50	£ 809

Ultra fast graphics cards for use with our  
PPC accelerators. CyberVision PPC for  
CyberStorm PPC and Blizzard 2604e.  
BlizzardVision for Blizzard 603e/603e+.

## 68060 Accelerators & Accessories

### CYBERSTORM PPC

68060/68060, Ultra Wide SCSI,  
4 SIMM slots (in matched pairs).  
With SCSI accessories available.

£ 305

BLIZZARD

A4000/4000T  
A3000/3000T  
£ 475

The Blizzard 1260 Turbo is fitted with  
a 50MHz 68060 and two 68MM slot.  
The optional SCSI-MAN (not only adds  
SCSI, but also an every SIMM slot.

A1200

£ 60

\*A3000/3000T requires modification.

## SCSI Hard Drives

3.5" Bare, ULTRA SCSI-3

ULTRA SCSI-3 is Compatible with SCSI-1 & 2

2.1Gb IBM Capricorn (5400)	£ 159
2.1Gb IBM Capricorn (Wide)	£ 164
4.3Gb IBM Capricorn (5400)	£ 249
4.3Gb IBM Capricorn (Wide)	£ 254
4.5Gb Seagate Hawk (7200)	£ 279
4.5Gb Seagate Hawk (Wide)	£ 315
4.5Gb ES New (Wide/Narrow)	£ 369

## IDE Hard Drives

3.5" Bare, For A4000

NOT suitable for Internal Fitting in A1200  
They can be used in A1200 Tower systems  
fitted with a properly buffered IDE interface

2.1Gb Seagate Ultra DMA	£ 125
2.5Gb Seagate Ultra DMA	£ 135
3.2Gb Fujitsu E-IDE	£ 135
3.2Gb Seagate Ultra DMA	£ 145
4.3Gb Fujitsu Ultra DMA	£ 165

## IDE Hard Drives

2.5" Bare, For A1200

1.8Gb IDE	£ 159
2.1Gb IDE	£ 189

Cable, S/W & Screws £ 10

## CDROM Drives

Internal Fitting - NOT for A1200

32 x Speed Toshiba scsi	£ 99
8/4 x SCSI-2 CD Writer	£ 299
6/2/2 x SCSI CD ReWriter	£ 379
ATAPI / IDE CDROMs are for A4000T or A1200 Towers with buffered IDE interface	
32 x Speed ATAPI / IDE	£ 69
External CDROM with Cables etc.	
8 x Speed NEC SCSI-2	£ 149

## Cartridge Drives (SCSI)

SyJet 1.5Gb Ext. + Cable	£ 269
SyJet 1.5Gb int.	£ 259
SyJet 1.5Gb Cartridges (x 3)	£ 159
ZIP 100Mb Ext. + Cable & Term	£ 135
ZIP 100Mb NEW Internal	£ 135
ZIP 100Mb Disks (x 6)	£ 75
JAZ 1Gb Ext. + Cable & Term	£ 369
JAZ 1Gb Internal 3.5" version	£ 279
JAZ Disks (x 3)	£ 239
EZ Flyer 230Mb Ext. + Cable	£ 135
EZ Flyer 230Mb Disks (x3)	£ 57

ALL DRIVES SUPPLIED WITH ONE DISK

## Networking

HYDRA Zorro Ethernet	£ 159
A1200 PCMCIA Ethernet	£ 129

## Memory SIMMS

8Mb 72 pin 60ns EDO	£ 17
16Mb 72 pin 60ns EDO	£ 33
32Mb 72 pin 60ns EDO	£ 49

## POWERUP

AMIGA+ GOES POWERPC

**Blizzard 603e+**  
If you're thinking of buying one,  
show it to you to the expert!  
For the best advice and service (Although  
not necessarily the best price - After all,  
excellent service doesn't come cheap!)  
Call White Knight now on 01920 822 321

## Genlocks

LOLA 2000 SVHS & VHS	£ 349
LOLA 1500 VHS Only	£ 179



**SIRIUS SVHS & VHS**  
Plus Audio & Chroma Key.  
Software control. £ 589

NEPTUN As Sirius, but without  
audio, RGB & Chroma Keyer. £ 429

## AMIGA 4000T

With 040/25, 6Mb, NO HD  
**£ 1,179**  
Without CPU, 6Mb, NO HD  
**£ 1,049**

## Monitors

17" Hi-Res SVGA	£ 309
15" Hi-Res SVGA	£ 169
14" Hi-Res SVGA	£ 139

Note: To use any SVGA monitor, Amiga  
needs a Scandoubler or Flicker Fixer!

## Clearance Software

Notes: Minimum Order £50+P&P	
AMIBACK 2 - HD Backup	£ 25
AMIGAVISION Authoring	£ 20
MULTIMEDIA EXPERIENCE	£ 40
MONEY MATTERS V4	£ 6
TURBOCALC 3.5 Spreadsheet	£ 25
TERMITE Communications	£ 15
INFONEXUS 2 File Manager	£ 15
PROFESSIONAL CALC V2	£ 15
PHOTON PAINT V2	£ 8
STUDIO 2 Printer Drivers	£ 30
SWIFWARE Internet Starter	£ 10
ORGANISER 2	£ 25
ADORAGE MAGIC Casablanca	£ 29
AMINET 8 / 9 / 11 CDROM	£ 11
AMOS PD LIBRARY CDROM	£ 8
OCTAMED S/STUDIO CD	£ 13
SOUNDN TERRORIFIC CDROM	£ 10
EMC PHASE 2 / 3 CDROM	£ 10
MULTIMEDIA TOOLKIT 2 CD	£ 12
ANIMATIONS DOUBLE CD	£ 10

## Specifications ?

If you need technical details on  
any of our products, call us  
on 01920 822 321 weekdays.  
White Knight Technology  
are renowned for excellent service

## VIVA THE AMIGA!

Please Call Us to Verify Price &  
Availability Before Posting An Order.  
Goods Are Not Sold On A Trial Basis  
Minimum Order Value £50 + P&P  
Many prices subject to exchange rate.  
E & O E - 17/04/98

# PD.net

Dave Stroud unleashes another great assortment of Internet PD software utilities and games.

## AmiFig 3.0

**Type:** Structured Graphics Tool

**Available from:** Aminet:

[gfs/edit/amiFig30\\_68k.lha](http://gfs/edit/amiFig30_68k.lha)

**Size:** 326K

**Requirements:** O.S. 3.0+

Version 3 of this excellent structured graphics tool now supports the Xfig 3.2 file protocol, multiple paint windows and object alignment. Added to all the other features of this program, AmiFig continues to impress.

With all the drawing tools provided, you can create anything from simple line-drawings, through clipart, to complicated scientific diagrams. Let your imagination run wild! Oh, but this is a restricted demo version, which only saves out images composed of up to 30 objects.

For a very reasonable registration fee of US\$ 20 or DM 30, however, you can unleash this program's full potential. The sky, as they say, is the limit. Well, almost. You'll probably need quite a lot of RAM to reach the sky.

As for the versatility of this program, well, there's not nearly enough room to do it justice here, so scoot on over to the CUCD/Magazine/InternetPD drawer on CUCD23 to check it out for yourselves. ★★★★★



## Soliton 1.61b

**Type:** Card Game

**Available from:** <http://www.uni-karlsruhe.de/~Kai.Nickel/soliton/soliton161b.lha>

ha

**Size:** 263K

**Requirements:** Kickstart 3.0+, MUI 3.6+

It's a card game. More precisely, a patience game. Much like Klondike, only it uses MUI and adds some extra little features like statistics, a timer and a move counter. Other aesthetic touches like animated card-turning and a selectable background pattern, not to mention those which MUI can give it, means that this is a very configurable game of patience. When all's said and done, it is only a game of patience, but it's a very good one. There are plenty of options to make the game as easy or as difficult as you'd like, including that of showing a "move" button when a move is possible (and if you can't see it yourself, clicking the "move" button will get the computer to do it for you).

You can define up to ten different "profiles" – combinations of cardsets and background patterns – to flick between at will. Creating your own cardsets can be done with any paint package – Soliton imports cards from a simple brush, and supports datatypes, so you don't need to convert images to a particular format. The archive also contains some scripts for ImageFX and Personal Paint to convert other cardsets like those used by Klondike to a format recognised by Soliton.

All in all, an excellent implementation of an old idea, and it's hard to see what could be added to Soliton to make it more appealing. After all, there's only so much you can ask for from a game of patience. ★★★★★

## Circuit 1.2

**Type:** Circuit board simulator

**From:** Aminet: [misc/sci/circuit.lha](http://misc/sci/circuit.lha)

**Size:** 67k

**Requirements:** Kickstart 3.0+, MUI 3.0+

Written in AmigaE by Maxime Gamboni, Circuit allows you to design and simulate circuit boards, and would therefore have come in very handy for my A-levels. Sorry Maxime, but you're a little late! Still, let's see what it can do.

Two windows are opened when you run Circuit for the first time; the main window and a project window, which acts as a blank canvas for designing your circuit. You do this by clicking and dragging an element in the second column of the main window to the project window. Do this with a couple of switches, a gate of your choice and a light bulb, and place them as you wish. Now all you have to do is link them up.

After reading the manual, you soon find out that this is done with the "bind" object (the first icon in the first column of the main window). Clicking this, followed by the output point of one element and the input of another wires the two elements together. Do this a couple of times, and you've got yourself a simple circuit.

I'm sure someone who would actually use this tool seriously would find it very useful – it has a lot of potential, but there's still plenty of room for improvement. The user interface could be made more intuitive, the manual could help by including an example tutorial to get you started (although there are a couple of example circuits included), and a print option would be a bonus for "debugging" your circuits on paper. ★★





## SPlayer 1.9

Type: Sound Utility

From: [http://www.oxford.net/~favers/files/splayer\\_v1.9.lha](http://www.oxford.net/~favers/files/splayer_v1.9.lha)

Size: 114K

Requirements: Kickstart 3.0+, Play16 1.7+, Mpeg3 3+

SPlayer's main use is as a GUI frontend for Mpeg and Play16 (both of which are available from Aminet). It doesn't use MUI, so it doesn't have the configurability of similar utilities, but as a plus point, doesn't require as many resources for a relatively simple tool.

It can also be used from the CLI, and the documentation included in the archive contains information on how to set up SPlayer for use with Dopus, AWeb and IBrowse.

Its main use, however, is as a GUI. From the point of view of configurability, it isn't very. I absolutely loathe the Topaz font (what is it with Topaz this month, is it back in fashion?), and would stake my life on not being the only one to hope for a font-sensitive GUI in a future version.

The GUI window can be toggled between Play16 and Mpeg modes, and controls plenty of features of both sound-playing utilities. The familiar "LCD" panel in the top left of the window is a tad on the large side, and, whilst the window isn't resizable, you can iconify it if you wish.

There are several other features of SPlayer available from the menu, like AutoLoad and AutoPlay, and it can save out files too, so if you use it to scan a drawer-full of samples, you can save out only the ones you want to a different location.

I know the author doesn't want any "GadTools vs MUI" flame wars developing, but a font sensitive GUI of some sort would be a welcome change to the current Topaz offering. Otherwise, SPlayer appears to be a very competent little utility. ★★ ★★



## A bit on the side

With an increase in the number of files now residing on my hard disk (not to mention the need to buy another CD rack), I'm finding it increasingly difficult to remember where all those files are. A good job, then, that version 1.13 of DirScanner was uploaded to Aminet recently ([util/wb/DirScanner113.lha](http://util/wb/DirScanner113.lha) - 40k). It's also nice to see confirmation that Topaz/8 is, indeed, hated the world over, as the author names it as one of the reasons for using MUI to create DirScanner's font-sensitive GUI.

Continuing the cluster of MUI utilities is Address ([biz/dbase/Address.lha](http://biz/dbase/Address.lha) - 60k). Like DirScanner, it does a simple job - this time of keeping track of all those names and addresses you can't be forgetting. It's not complicated, which is good, because I don't like it when things get complicated. Some user-definable fields and a configurable layout would be quite nice though.

For those of you who appreciate and take care of your RAM, another couple of memory-oriented utilities might be right up your street. First up is RadMan ([disk/misc/radman.lha](http://disk/misc/radman.lha) - 50k), which, despite sounding like a sound-bite from a cheesy eighties flick, is in fact a GUI for RAD disks. No folks, this one does not use MUI.

The other memory tool is ShowMem ([util/moni/ShowMem.lha](http://util/moni/ShowMem.lha) - 6k), which pops up a resizable window on the Workbench screen showing you a colour-coded representation of your memory - what sort, how much is used, and how much is free. I told you I didn't like it when things got complicated.

Finally, speculation over phase5's pre/box has already started. Witness the first guess at its appearance - ([pix/trace/PreBox.lha](http://pix/trace/PreBox.lha) - 241k). Now, here's a little exercise: Cover up the bottom two-thirds of the picture (so you can't see the grill), get rid of the logo, imagine it's sprayed black, and tell me what you see. Anyone for a spot of housework?



## Bloog v1.0

Type: Mailware

Available from: Aminet: [game/think/Bloog.lha](http://game/think/Bloog.lha)

Size: 324K

Despite being another "push blocks around in a certain way to finish each level" puzzler, Bloog manages to be different enough to catch your attention. Alright, so the character you control - a green blob - is far from imaginative, but the gameplay makes up for this.

At the beginning of each level, various coloured blocks are scattered about a room, amid jewels and other items. The idea isn't to push them all into one place (thank heaven) but instead, to get rid of them, because they aren't of primary importance.

You need to collect a certain number of golden keys to complete each level. Sometimes, there are already a few of these scattered around the level which you can just pick up, but what do you do when there aren't any left?

This is where it gets interesting. The blocks which you can push around the screen are coloured either red, yellow or blue. Pushing a block into another of the same colour results in both blocks disappearing and being magically replaced by a key. Very nice.

To stand in your way are such traps

as lava (which you can't normally walk over) and spikes (which you can never touch).

Other items like stars (which let you walk over lava), hearts (which act as a transportation device) and coloured squares (which change a block's colour) are there to help you, and to make things a little more tricky, the old favourite - squares you can only walk across in one direction - also make an appearance.

All these features are introduced to you gradually, and could make for some fiendish levels in the final game, which should be finished around the time you read this - all you have to do to get it is show your interest by emailing the author. I like Bloog, but still think it could be improved aesthetically, by getting rid of that pig-ugly Topaz font for a start.

Also, being able to quit the game and return to Workbench instantly (without having to go through the menu) would be nice. Keep up the good work, Marcus! I do look forward to seeing the final game. ★★ ★★

# PD.POST

PD.POST

**For those without Internet access, here's Richard Drummond with a round-up of the latest PD available via mail order.**

## Impérial V2.66

Type: Puzzle game

Available from: Underground PD, 54  
Carmania Close, Shoburness, Essex  
SS3 9YZ Tel: 01702 295887

Price: £1.50

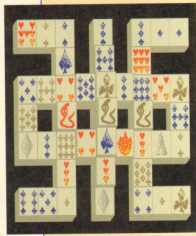
Impérial, by Jean-Marc Boursot, is a puzzle game based on the tiles from Mah-Jongg. The idea is to remove free pairs of tiles from the arrangement of tiles on the screen until none are left. A simple idea? Yes. But it is difficult and very addictive.

**Disk  
of the  
Month**

There are many similar games like this to be found, but, personally, Impérial is my favourite. It oozes atmosphere – with its oriental look and eery music – and it has a plethora of options to prevent it becoming a bit too repetitive:

6 different layouts, a layout editor, two player challenge mode, etc.

Impérial is polished, habit-forming and Workbench-friendly. If you have an earlier version, this new version doesn't offer much more. If you don't, get a copy now (and remember it's shareware). ★★★★★



## M2I5

Type: Workbench utility

Available from: KEW=Il Software, PO Box 672, South Croydon, Surrey CR2 9YS  
Tel: 0181 657 1617 E-mail: kew=il@netcomuk.co.uk

Price: £1.50

M2I5 is an applications and tools launcher for Workbench and, as such, is a contender for ToolManager 3.0's crown. Can this new blood aspire to better the long-standing champion?

M2I functions similarly to ToolManager. It creates strips or "docks" of button gadgets on the Workbench screen which can be clicked to launch applications or scripts. Icons can be dropped on buttons to pass arguments to an application. Tool Manager's Prefs editor is more powerful and easier to use since it uses MUI, but anybody out there who dislikes MUI may prefer M2I.

Where M2I really scores over ToolManager is the ability to use icons in its docks rather than just text and/or images. This is visually appealing, especially if you have NewIcons installed. M2I does all the necessary colour remapping

for you. Its other innovative feature is the ability to dynamically create docks by scanning for files in a particular drawer.

For example, you could create a dock of all your Prefs programs by simply telling M2I to scan your Prefs drawer.

Overall, this an excellent utility - but I will remain loyal to ToolManager. ★★★★★



## Icon Poet

Type: Novelty

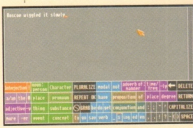
Available from: Available from: Classic Amiga PD, 11 Deansgate, Radcliffe, Manchester, M26 2SH Tel: 0161 723 1638

Price: £1 plus 75p P&P per order

Icon Poet is, as the author Steve Tiffany claims, a creative writing toy. You supply it with a sentence structure by clicking on different grammatical terms and it produces corresponding words at random from its dictionary. A rather bizarre idea, you might think, and you would be right. But it does have some fun and novelty value.

The interface is rather clunky and non-standard, being written in AMOS, but it is functional and provides all the usual text editing controls. It also allows you to import and export ASCII files so that you can use Icon Poet to add some "creativity" to external and more staid documents.

This program does not have much practical use, but perhaps it may help to inspire authors suffering from the dreaded writers block? Who knows? Anyway, it is cleverly written and may provide half-an-hour's amusing diversion. ★★★★★



## Collector 2.1

Type: Graphics utility

Available from: KEW=II Software, PO Box 672, South Croydon, Surrey CR2 9YS

Tel: 0181 657 1617

Price: £1.50

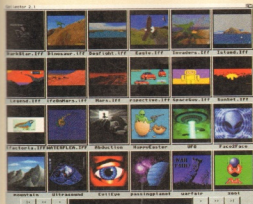
Collector is a utility for creating thumbnail indexes of your image collections. In this respect it does a similar job to commercial products such as Picture Manager Pro, albeit at £40 pounds cheaper. OK – it has no image processing or conversion facilities, but as "CreationWare" (if you like it, you send the author something you have created yourself) it is impressive.

You may have seen an earlier version of this program, and, if you have, then this version is still well worth a look. The author, Frédéric Calendini, has completely rewritten the program in C (from AMOS).

It's now faster and more system-friendly and requires an AGA Amiga with Workbench 3.0+.

The program features a simple GUI with keyboard short-cuts and has many features and options to make the task of graphics cataloguing easier. It supports the creation of thumbnails in 16 or 256 colour grey-scale or 256 colours, the automatic scanning of directories, XPK compression, the creation of multi-volume indexes, and the saving of the indexes as IFF files. The only glaring omission is that it has no ARexx port.

Collector is no competition for its commercial counterparts, but does its job cheaply and well. There are newer versions of this program available, for example, on the Aminet, but this version is still very usable. Perhaps if you speak more to KEW=II Software they will supply you with the latest version. ★★ ★



## Class HD Utils #30

Type: Utilities collection

Available from: Classic Amiga PD, 11

Deansgate, Radcliffe, Manchester, M26 2SH

Tel: 0161 723 1638

Price: £1 plus 75p P&P per order

This is the 30th incarnation in this utility series and contains the same mixture of useful and novel software as its predecessors.

AllSystemsGo, which plays a sample of HAL-9000 from the film 2001 saying "All my systems are operational . . .", is intended to go into your WBSStartUp drawer. This, perhaps, does not come under the headings useful or utility, but nevertheless has some amusement value – at least for the first two or three times.

Keyboarder is a game to help you polish your typing skills. It consists simply of letters falling down the screen – which you must type as quickly as possible.

There are many similar programs to be found with more features, but this is quite a nice version.

Zeller is a perpetual calendar program based on the Zeller's Congruence algorithm. It can display a calendar of any month between the years AD1753 and AD2100. I'm not convinced that anybody will actually find use for this, but at least this is one piece of software that will still be functioning in the next century.

There are a few other interesting odds and ends on this disk. For example, UnZip, a GUI for zip decompression; ADInlay for creating inlays for audio cassettes; a PhotoCD datatype; and a font catalogue for the FinalWriter word processor.

Nothing on this disk is a 'must-have', but there is a wide selection of software here. For £1 this has to be good value for money. ★★ ★

## Telly Chubbies, Armchair Assassin AGA

Type: Game

Available from: Classic Amiga PD, 11 Deansgate, Radcliffe, Manchester, M26 2SH

Tel: 0161 723 1638

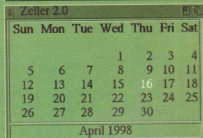
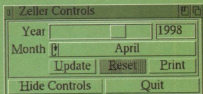
Price: £1 plus 75p P&P per order

The documentation for this game states, "The object of the game is to blast the stuffing out of as many of those EVIL TellyChubbies(tm) as your mouse hand can cope with." That says it all really.

This is an absurdly simple and pointless game. You control a cross-hair with the mouse and have to zap all the tiny "Chubbies" that are running about the screen. You do get a choice of weapon: shotgun, mini-gun or photon torpedo. But that's about it.

It would have been nice to have

had this game before Christmas – it would have been the perfect relief from all the media frenzy about those pathetic TV Chubbies. However, as a game, it does not offer much. If you need five-minutes-worth of gratuitous violence, give it a go. ★★ ★



# Art Gallery

**Are you a Digital Dali? Computer Carravaggio? Send your pics to:  
Art Gallery, CU Amiga, 37-39 Mill Harbour, Isle of Dogs, London E14 9TZ.**



## **See your work in print... and win a print, too!**

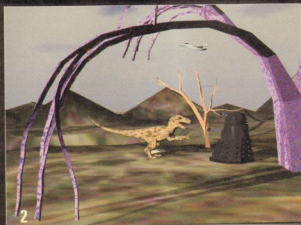
Each month we will declare one picture in the Gallery to be picture of the month – and if it is yours, we will send you a print of your work output to an ultra high quality IRIS printer on glossy paper (that's around 25-30 quid

from a print shop to you, guv'!) – you'll never see your work look so good! If you want to enter a picture into Art Gallery, either email it to [artgal@cu-amiga.co.uk](mailto:artgal@cu-amiga.co.uk) or post it in on disk to our normal address, marking the envelope Art

Gallery. We recommend the use of PNG format as it saves a lot of disk space, but alternatively GIF or IFF are fine.

★ 'Jpeg' drops image quality so avoid where possible – also never use for images with 256 or fewer colours.





**1. Train View by Auburn Thomas Hodgson**  
This piece was rendered in Cinema 4D, based on a sketch Auburn did on a train. The landscape through the window was photographed through a train window. The acid colours, as anyone who remembers Auburn's picture of a Beetle some months back will recall, are his/her (sorry, unisex name!) trademark. Reminds me of a journey through pollution stained Hungarian countryside a few years back. Dramatic, well composed, excellent colour sense. Send us more!



**2. Dangerous Liasons by Steve Dukes**  
Steve's first render in Imagine. The models are from the Aminet, uploaded by Andrew Nun, but the idea is what makes it worthwhile. Steve says he is a fan of the "impossibly stupid Daleks" as well as dinosaurs, and thought the two would go well together. A great evocation of childhood obsessions - I certainly remember playground debates on whether Giant Haystacks could beat Judge Dredd or if Dracula could last three rounds with James Bond.



**3. Last Man Standing by Cedric Moorhead**  
This pic was sent in by Cedric, who makes it clear in his letter he is an opinionated bastard. "I whipped this up in no time," he says, "because everything in your art gallery is so (expletive deleted) that I only needed 20 minutes to do better." He says he used to like the gallery but reckons that these days it is "full of (expletive deleted)s doing a bunch of (expletive deleted) on DPaint 2 they got with their A500." Cocky git, huh? He goes on to say that he did this picture in Art Effect ("great, but buggy as (expletive deleted)") and Image FX ("the dog's testicles"), and reckons he's going to use Art Gallery to get his work printed on an IRIS once a month. Yeah, right. So what do you lot think - is he right, or is he just a little (expletive deleted)?



**4. White Skies by Auburn Thomas Hodgson**  
Auburn gets two pics in this month by dint of supplying two very good ones. This one has scanned clouds and textures generated in Dpaint and Photogenics. The latter was used for the motion blur and the HUD overlay, too. The subject matter is a pretty clichéd one, but the execution is original, in your face and very dynamic.

**5. Spiced by Raymond Zachariasse**  
Raymond, you are a sick man. A solid piece of DPaint draughtsmanship demonstrating a real skill with the mouse and a real lack of musical taste. The likenesses are of variable quality (Baby spice looks scarier than Scary) but Spiced certainly earns a place in the Gallery on the basis that I can't resist skillfully hand drawn pieces.

# Use Groups

Let our international user-group directory put you in contact with other Amiga users in your local area.

To add a new group to the list, just fill in the form on the opposite page.

**Amiga Christchurch Inc.**  
Location: Christchurch New Zealand  
Contact: Annette Leonard  
Telephone: +64 03 3390232  
Meeting times: Second Tuesday of every month 7:30 pm.  
Places: Shirley Community Centre, Shirley Rd.  
Address: ACI, PO Box 35-107, Christchurch, NZ

**Amipack**  
Location: World Wide - An Amateur Radio Amiga Group  
Contact: Paul Carson  
Email: DJKus@CarsonJ.clara.net  
Telephone: N/A  
Meeting times: TBA  
Places: On the Amateur Radio Packet Network.  
Address: 10 Belgravia Avenue, Bangor, Co. Down, N.Ireland  
BT19 6XA

**Waaslandia**  
Location: Belgium  
Contact: Tony Mees  
Email: waaslandia@glo.be  
Telephone: +32 (0)3744 1319  
WWW: <http://ritan.glo.be/~waasland>  
Meeting times: 12 meetings per year  
Places: We have 6 Amiga clubs in Belgium - Antwerpen; Merksem; Aalst; Mechelen; Turnhout; St-Niklaas  
Address: Lepelstraat 11, 9140 Steendorp Belgium

**Wigan/West Lancs Amiga User Group**  
Location: Wigan/W Lancashire  
Contact: Simon Brown/Ralph Twiss  
Email: ssamiga@globalnet.co.uk  
Telephone: Simon: 01257 402201 or Ralph: 01695 623865  
WWW: [www.warp.co.uk/~ssamiga](http://www.warp.co.uk/~ssamiga)  
Meeting Places: St Thomas the Martyr School Hall, Highgate Road, Ulling, Lancs  
Address: 79 Woodcock Road, Appleby Bridge, Wigan, WN6 9JR &  
32 Higher Lane, Ulling, West Lancs

**Alpha Software**  
Location: Newcastle, UK  
Contact: Gareth Muffin  
Email: gazy@globalnet.co.uk  
Telephone: 01670 715454  
WWW: <http://www.users.globalnet.co.uk/~gazy/>  
Meeting times: 8 - 9pm  
Places: IRC #AmIRC, GalaxyNet  
Address: Alpha Software, Gareth Muffin, 113, Cateran Way, Collingwood Green, Cramlington  
Northumberland, NE23 8EZ, UK

**Convergence International**  
Location: International  
Contact: Ben Clarke  
Email: enquiries@convergence.ie.org  
Telephone: 0956 959559  
WWW: [www.convergence.ie.org](http://www.convergence.ie.org)  
Meeting times: 8pm (GMT), Wednesdays and Sundays  
Places: #converge (IRCNet)  
Address: 49 St. Gilberts Road, Bournie, Lincs, United Kingdom

**Amiga Club Genk (ACG)**  
Location: Genk, Belgium  
Contact: Bart Vanhaeren  
Email: amiga-club.genk@skynet.be  
WWW: <http://users.skynet.be/amigaclub>  
Meeting times: every 1st Sunday of month  
Places: Cultural Centre of Genk, meeting room 1  
Address: Weg Naar Zwartberg 248 B-3660 OPGLABBEK, BELGIUM

**Relax ITC**  
Location: Poland  
Contact: Shandor  
Email: shandor1@polbox.com  
Telephone: +48-81-367184  
Meeting times: TBA  
Places: unspecified  
Address: ul. Maciejowicza 1/27 71004 Szczecin 10, Poland

**National Capital Amiga User Group**  
Location: Washington D.C. USA  
Contact: Fabian Jimenez  
Contact by: Phone (please send us your phone number - Fabian)  
Telephone: 301/924-0750 (10pm - 1am EST)  
Meeting times: 12:00 noon EST  
Places: Dolly Madison Library  
Address: Fabian Jimenez, NCAUG  
PO Box 12360, Arlington, VA 22209 USA

**Amiga World Special Interest Group**  
Location: Athens, Greece  
Contact: Menis Malaxianakis  
Telephone: 301-9028910/910219  
WWW: <http://www.computelink.gr/amiga>  
Meeting times: 5pm Saturdays Places: Athens  
Address: Menis Malaxianakis, Gianniton 11str 17234, Dafni Athens, Greece

**Amiga Forever!**  
Location: Hampshire  
Contact: Stuart Kent  
Telephone: 01703 861842 all day  
Meeting times/Places: TBA  
Address: 101 Ewell Way, Totton, Southampton, Hants SO40 3PQ

**Mutual Amiga Computer Enthusiast**  
Location: Bedfordshire, Newcastle, Australia  
Contact: Ken Woodward  
Email: ken@nash.com.au  
Telephone: after working hours  
Meeting times: 7pm 1st & 3rd Wednesday of month  
Places: Bedfordshire Bowling Club  
Address: 59 Carrievale Avenue, New Lambton, Newcastle, N5 Wales Australia

**Kickstart, Surrey Amiga User Group**  
Location: Surrey  
Contact: Rob Gilbert  
Email: gilbert@arnaks.u-net.com  
Telephone: 01932 876336  
WWW: [www.arnaks.u-net.com](http://www.arnaks.u-net.com)  
Meeting times: monthly (TBA)  
Places: Vary  
Address: 10 Brook Road, Ottershaw, Surrey KT16 0HL

**Canberra Amiga Users Society Inc**  
Location: Canberra, ACT, Australia  
Contact: Alex Cameron (Secretary)  
Telephone: (02) 6286 2966

**WWW:**  
<http://www.spirit.net.au/~jamesm/CAUS/>  
Meeting times: 2nd Thursday of the month from 8pm.  
Places: Woden Town Centre Library (Entry - The Elm Cafe)  
Address: Canberra Amiga Users Society PO Box 586, Canberra ACT, 2601, Australia

**XCAD User**  
Location: N Ireland  
Contact: Tony McGartland  
Telephone: 01662 250320 (after 6pm)  
Meeting Times/Places: TBA  
Address: 11 Larney Drive, Omagh, Co Tyrone BT78 5JB

**ICPUG SE Computer Club**  
Location: Biggin Hill, Kent  
Contact: Len Beard  
Telephone: 01689 813 616  
Meeting times: Thursdays 8-10pm  
Places: Biggin Hill (phone for details)  
Address: 56 Rockside Rd, Orpington, Kent BN5 4JL

**Colchester Amiga Forum**  
Location: Colchester, Essex  
Contact: Patrick Mead  
Telephone: 01206 212 864 (Mon-Fri)  
Email: pjm@adl@hotmail  
Meeting Times/Places: TBA  
Address: 9 Windmill Ct, Colford, Colchester, Essex CO6 1LH

**Luton Amiga Users Group**  
Location: Luton, Beds  
Contact: Dave Noble  
Telephone: 01582 750 638  
Meeting Times/Places: Monthly TBA

**Deal Amiga Club**  
Location: Deal, Kent  
Contact: John Worthington  
Telephone: 01304 367 992  
Meeting times: 7pm Fridays  
Places: St John Ambulance Hall, Mill Hill, Deal, Kent  
Address: 100 Trinity Place, Deal, Kent

**Amiga Service**  
Location: Chislehurst, Belgium  
Contact: Hielit Raphael  
Telephone: 003271 458 244 (8am-6pm)  
Meeting times/Places: TBA  
Address: Rue Du Nord 93, 6180 Courcelles, Belgium

**Extreme Coderz**  
Location: Sheffield  
Contact: Mark Johnston  
Telephone: N/A  
Meeting Times/Places: Contact for details  
Address: 1st Floor, 145 Upperthorpe Rd, Upperthorpe, Sheffield, S6 3EB

**Stoke Amiga User Group**  
Location: Stoke on Trent, Staffs  
Contact: Paul Shelley  
Telephone: 01782 553 219  
Meeting Times: 7:30pm Wednesdays  
Places: Jester Public House, Biddulph Rd  
Address: 19 Houldsworth Drive, Fegg Hayes, Stoke on Trent, Staffs. ST6 6TG

**Amiga Falcons**  
Location: Malmö, Sweden  
Contact: Carl-Johan Rudnert  
Telephone: +46 40 932212  
WWW: <http://www.algonet.se/~mcisac/amiga>  
Address: Amiga Falcons, c/o Carl-Johan Rudnert, Vebbersögatan 9, SE-212 28 Malmö, SWEDEN

**Finnish Amiga Users Group**  
Location: Finland  
Contact: Janne Siren  
WWW: <http://batman.jyt.fi/~sak/>  
Address: Janne Siren Oravamaentie 2 F 17 02760 Espoo, FINLAND

**Amiga Computer Enthusiasts of Elkhart, Indiana**  
Location: Northern Indiana, USA  
Contact: Gregory Donner  
Telephone: (219) 875-8593 (after 5pm) WWW: [www.cyberlinkinc.com/gdonner/lace.htm](http://www.cyberlinkinc.com/gdonner/lace.htm)  
Meeting times: Second Saturday of the month  
Places: 26728 Hampton Woods Dr, Elkhart, IN 46514  
Address: 60300 Pymbrook Lane, Elkhart, IN 46517-9167, USA

**Phoenician's 6 ImageFX Users**  
Location: Stanford-Le-Hope, Essex  
Contact: Spencer  
Telephone: 01375 646614 (8am-9pm)  
WWW: <http://web.ukonline.com/uk/pencer/jarvis/ontents.html>  
Meeting Times/Places: TBA  
Address: 44 Brampton close, Corringham, Stanford-le-Hope, Essex, SS17 7NR

**No Specific Name**  
Location: Greenford Community Centre, London  
Contact: Richard Chapman  
Telephone: 0181 996 8599 5pm-8pm  
Meeting times: all day at weekends  
Meeting times: 7pm-10pm Thurs  
Place: Greenford Community Centre  
Address: 96 Meadowale Road, Ealing, London, W5 1NR.

**AmiTech Amiga Users Group**  
Location: Dayton Area, Ohio, USA  
Contact: John Feigelson  
Telephone: (937) 667-9541 After 8pm EST  
WWW: [www.coax.net/people/eric/AmiTech.htm](http://www.coax.net/people/eric/AmiTech.htm)  
Meeting time: 3rd Saturday of the month - 1:30pm  
Places: Huber Heights Library  
Address: AmiTech, PO Box 292684 Kettering, OH 45429-0884

**South West Amiga Group**  
Location: South West England  
Contact: Andy Mills  
Telephone: 01725 830703  
(7-10:30pm weekdays, anytime weekends (within reason))  
WWW: <http://www.sswame-u.net>  
Meeting Times/Places: TBA (likely to be Bristol/Bath area)  
Address: Please contact for further details  
Address: 51 Wednesfield Gardens, Whitchurch, Bristol, BS14 9NF

**Tuggerah Lakes Computer Users Group**

Location: Central Coast, NSW, Australia  
 Contact: Darrell Keiman  
 Meeting Times: 1st & 3rd Thursday of every Month  
 Places: Berkeley Vale Public School  
 7:00pm  
 Address: PO Box 659, Toukley, NSW, Australia 2263

**Tasmanian Commodore Users**

**Association Inc**  
 Location: Hobart, Australia  
 Contact: Eric Fillich  
 Telephone: (0181) 220 787  
 Meeting times: 7:30-9:30pm, 3rd Wednesday of the month  
 Places: Contact for address  
 Address: GPO Box 673, Hobart GPO TAS 7001

**University Place Commodore Home Users Group**

Location: Tacoma, Washington USA  
 Contact: Jim McFarland  
 Telephone: (253) 265-3478 evenings  
 WWW: <http://www.mwlink.com/~red-beard/upchug/>  
 Meeting times: 4th Thursday evening of each month  
 Places: Fircrest Community Center, Tacoma, WA  
 Address: PO Box 11191, Tacoma, WA 98411-0191, USA

**R.A.V.A.**

Location: Alkmaar, the Netherlands  
 Contact: Roland de Herder  
 Telephone: Wiania call international? Ask me for my number.  
 WWW: <http://www.cybercomm.nl/~macron/rava.html>  
 Meeting times: 12 times a year  
 Places: Alkmaar  
 Address: R. de Herder, Ewilaan 35 1852 GM Heiloo, The Netherlands

**Virus Help Team - Norway**

Location: Norway  
 Contact: Helge Syre  
 Telephone: +4750175626  
 WWW: <http://rhoma.sot.no/~syre>  
 Address: Roeyrvikveien 40  
 N-4280 SKUDENESHAVN

**CWCCC**

Location: West Midlands  
 Contact: Luke Stowe  
 Telephone: 0966 467506 (after 10am)  
 WWW: None yet  
 Meeting times: 9pm-11pm  
 Places: Earlsdon Methodist Church  
 Address: 9 Trossachs Rd,

**Mount Nod, Coventry.**

CVS 7BJ

**Amigart**

Location: Istanbul  
 Contact: Guven KAPLAN  
 Telephone: 02022163020915  
 WWW: <http://www.mediatext.com.tr/amigart>  
 Meeting times: Two a month  
 Places: Anywhere  
 Address: Ortahisar sok. No:1 Hayat apt. d.2, 81080 Gortepce-Istanbul Turkey

**Commodore Computer User Group Queensland**

Location: Brisbane, Australia  
 Contact: Ronny Blake  
 Telephone: (07)32871790  
 WWW: <http://www.powerup.com.au/~rastlin>  
 Meeting times: 1st Tues of month, 7-9pm & 2nd Sun of month 12pm to 4pm  
 Places: St Laurence's College, 82 Stephens Rd, S Brisbane, Qld.  
 Address: 3 Cornhole Court, Eagleby, Gold Coast, Queensland, 4207, Aust

**Ayrshire Amiga Society**

Location: Irvine, Ayrshire, Scotland  
 Contact: Matiland or Dale  
 Telephone: 01292 267959 or 01294 275526  
 Meeting times: Wednesdays  
 Places: Annick Community Centre, Irvine.  
 Address: 49 Belmont Road, Ayr Scotland, KA7 2PE

**West London Computer Club**

Location: West London  
 Contact: Alan Paynter  
 Telephone: 0181-932-1856  
 Meeting times: 1st and 3rd Tues of month  
 Places: Duke Of York Public House  
 Address: 19 Harlech Tower, Park Rd East, Acton, London, W3 8TZ

**Dublin Amiga Users Telephone Helpline**

Location: Dublin, Ireland  
 Contact: Eddie McGinn  
 Telephone: +353-01-6235903  
 WWW: <http://www.ireland.amiga.org/helpline.html>  
 Meeting times: Anytime (24 hrs.)  
 Address: 27 St. Finians Green, Lucan, Co. Dublin, Eire

**Central Arkansas Amiga Users Group**

Location: Little Rock, Arkansas  
 Contact: Tim Grooms  
 Telephone: 501-851-7418

WWW: <http://www.concentric.net/~aaug.html>  
 Meeting Times/Places: Monthly TBA  
 Address: 14 Hickory Lane, Maumelle, AR 72113, USA

**Stoneybridge BBS**

Location: Dorset, UK  
 Contact: Oz  
 Telephone: 01202 679158 (10:30pm-6am GMT)  
 Address: 50 Junction Rd, Harnworthy, Poole, Dorset, (c/o NBU UK.)

**Amiga User Group of Western Australia**

Location: Perth, Western Australia  
 Contact: Arthur Rutland  
 Telephone: 08 93641717  
 Meeting times: 2nd Tues of month at 7pm  
 Places: Curtin University  
 Address: 31 Chaffers St, Morley Western Australia, 6062

**Amiga Computer Group**

Location: Umeå, Sweden  
 Contact: Martin Sahlin  
 Telephone: +46(0)90-24816 (24 hrs)  
 WWW: <http://www.amiga-cg.se>  
 Meeting times: Tuesdays 19:00  
 Places: Kalle Station, Umeå  
 Address: Skolgatan 14, SE-903 23 UMEÅ, Sweden

**Huddersfield Amiga Users**

Location: Huddersfield, W Yorks  
 Contact: Geoff Milnes  
 Telephone: 01484 543534  
 WWW: <http://www.geemil.demon.co.uk>  
 Meeting times: 7:30pm onwards  
 Places: Commercial Inn, Market St, Paddock Huddersfield.  
 Address: 6 Ochnewell Avenue, Deighton, Huddersfield, W Yorks.

**Highland Amiga User Group**

Location: Highlands, Scotland  
 Contact: Tommy MacDonald  
 Telephone: 01667 404757 Anytime  
 WWW: <http://azone.prohosting.com>  
 Meeting Times/Places: TBA  
 Address: 7 County Cottages, Phipherill, Nairn, Scotland, IV12 5SE

**Emerald**

Location: Northern Ireland  
 Contact: Charles Barr or Chris McGonagle  
 Telephone: 01504 884700  
 WWW: <http://www.geocities.com/SiliconValley/Park/7401>  
 Meeting Times/Places: TBA  
 Address: 77 St. Colmans Drive, Strabane, Co. Tyrone, N Ireland

**Team Amiga**

Location: Worldwide  
 Contact: Gary Paake  
 Telephone: 1 281 350 2194  
 WWW: <http://www.wans.net/~gpaake/links.html>  
 Meeting times: Daily  
 Places: All Nets and IRC  
 Address: 19723 Teller Blvd  
 Spring, Texas USA 77388

**Knox Computer Club**

Location: Galesburg, IL, USA  
 Contact: Mitch Durdle  
 WWW: <http://www.galesburg.net/~kcc>  
 Meeting times:  
 First Tuesday of Month 7pm  
 Places: 695 N Kellogg Galesburg, IL (in the auditorium)  
 Address: Knox Computer Club  
 1003 East Fifth Ave.  
 Monmouth, IL, 61462  
 USA

**AmigaTCS**

Location: Columbia Missouri  
 Contact: Terry Booher  
 Telephone: (573) 817 2948  
 WWW: <http://www.comingsoon.net>  
 Meeting times: 7pm 2nd Tues of month  
 Places: TBA  
 Address: 115 West Phyllis Avenue  
 Columbia MO, 65202  
 USA

**South West Amiga Group - Sydney (SWAGS)**

Location: Campbelltown, Sydney, Australia  
 Contact: Mark Vine  
 Telephone: (02)46311801 After 7pm  
 WWW: None yet  
 Meeting times: 7pm-10pm 2nd & 4th Wed of every month  
 Places: Airds Community Centre, Riverside Dr, Airds  
 Address: 11 Kennedy Grove, Appin, N.S.W. Australia 2560

**Computer club Aktief**

Location: Lelystad, the Netherlands  
 Contact: J. Yong Dijkhuis  
 Telephone: +31(0)320 241741 (not after 23:00 CET)  
 WWW: <http://mcs.nl/aktief/amiga/amiga.html>  
 Meeting times: Every Monday 19:30 till 23:00  
 Places: Bourthuis de Kralen (same as the postal address)  
 Address: Computer Club Aktief  
 p/a Bourthuis de Kralen  
 Ford 155  
 8224 DJ  
 Lelystad, The Netherlands

**Send this form to: User Groups; CU Amiga, 37-39 Millharbour, Isle of Dogs, London, E14 9TZ.**

**Alternatively, fax it to: 0171 972 6755, or use the online version of the form which can be accessed from our website at: [www.cu.amiga.co.uk](http://www.cu.amiga.co.uk) This service is completely free of charge.**

**General Location:** \_\_\_\_\_

**Tel:** \_\_\_\_\_

**Postal Address:** \_\_\_\_\_

**Meeting Times/Places:** \_\_\_\_\_

**Group name:** \_\_\_\_\_

**Email:** \_\_\_\_\_

**Web site:** \_\_\_\_\_

**Contact name:** \_\_\_\_\_

**Preferred contact method.(please tick)**

**E-mail** ☐ **Phone** ☐ **Post** ☐

CU  
**AMIGA**  
 MAGAZINE







**The CU Amiga Workshop... read on for your guaranteed fast-trak to enlightenment and inner peace.**

## 76 Personal Paint 6.6

John Kennedy teaches you to get some action going in those tired motionless images.

## 80 C Programming

This month Jason Hulance deals with some of the more drab yet essential tasks to increase your programs usability.

## 84 Surf's Up

Neil Bothwick gives you web news, whilst Net God delivers all the usual verbal.

## 85 Surf of the Month

Neil Bothwick has a little break from the Amiga norm, to inform you of some more general interest web sites.

## 86 Wired World

Due to suspected spam poisoning, Mat Bettinson lets Neil Bothwick take over this months Wired World.

## 88 Scala MM300

John Kennedy gives over this months Scala tutorial to common Questions and Answers.

## 90 Reviews Index

CU Amiga cuts its nose off to spite its face and saves you the trouble of reading through hour after hour of back issues.

## 96 Q & A

Got any questions on Amiga topics? We've got all the answers and lots, lots more.

## 99 A to Z

John Kennedy compiles another collection of alphabetical Amiga thingummyjigs.

## 106 Techno Tragedies

"Don't be square, be there". Prophetic words - when you're talking BSB Squarials that is.



Personal Paint 6.6 p26



Scala MM300 p88



Techno Tragedy p106

# Regulars

## 83 Back Issues

Missed out on an issue? Shame! All is not lost though, as you can probably find the offending article here.

## 100 Backchat

Comments, general information, criticism, suggestions. Here's a chance to get your name up there in print.

## 103 Subscriptions

Life is fantastic when you take out subscription to CU Amiga, the UK's best selling Amiga magazine. Oh, joy of joys.

## 104 Points of View

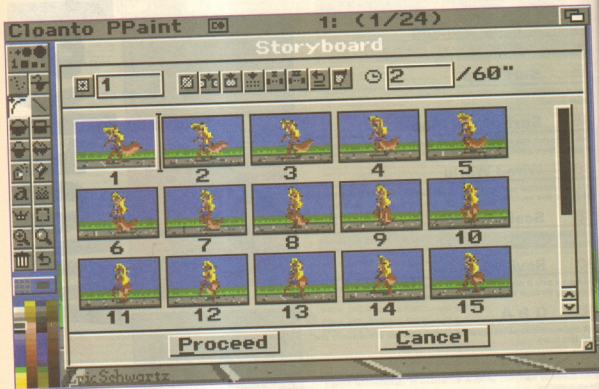
With soap boxes underfoot, CU Amiga staff and contributors let the world know just what they think about stuff. Do not mess.

# Amiga Workshop

**PART**  
**5**

# Personal Paint

Bored with static images? In our final PPaint tutorial John Kennedy explains how to get the most from its powerful animation features.



▲ From the Storyboard, you can see an overview of your animation and select individual frames.

An animation is a collection of images, shown in quick succession one after the other. The end result is something which looks like movement: it could be a cartoon, a moving diagram, some bounding text or even a video clip.

The Amiga has always been good at animation, and Personal Paint is one of the best tools for creating and editing these "anim" files, as they are known.

## Making an animation with Personal Paint

Before you start your animation, it pays to spend some time deciding on the screen mode you want to use. Although Personal Paint can

alter the mode after you have created some frames, it can be a lot simpler to settle on a suitable mode before you start. Although in an ideal world you would use as many colours as possible, you need to remember that more colours take up more memory – it's up to you to strike a balance.

It's almost impossible to predict how much memory a given animation will consume. As each frame is stored in terms of the differences between it and the previous frame, the size of the file will vary tremendously. If you are trying to make an animation using captured video clips for example, the file will be large. On the other hand, if you are

creating a hand-drawn cartoon which has a lot of static detail (such as a non-moving backdrop) then the files can be small.

Creating an animation is easy: simply start with the first frame as you would with any ordinary picture. Then add more frames using the options in the Animation menu. You can then move to the new frame, make changes, move back to the original and so on. When you're happy, select Play from the menu and watch as the frames are displayed one after the other.

The large number of drawing tools and effects made available by Personal Paint means it is possible to draw very professional-looking car-

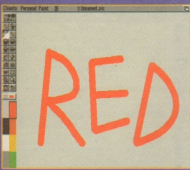
toons: you only need to look at the work of Eric Schwartz for example, and his Army the Squirrel animations. Incidentally, you can find a huge collection of Eric's work on the Personal Suite CD-ROM from Personal Paint programmers Cloanto.

## Storyboard window

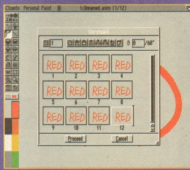
The key to managing animations with Personal Paint is the Storyboard window. This can be accessed from the Animation menu. It brings up a display which lists all the current frames in existence, along with their timing details. You can also right-click and drag to resize the windows which are used to represent the individual frames in the animation, and

## Colour animation

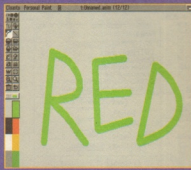
Another useful animation trick is to alter the colours. Personal Paint can store a separate palette per frame, which means you can reassign all the colours you need at any time. Not only does this mean you can use less colours overall (and so save memory and speed-up playback) but you can perform various tricks.



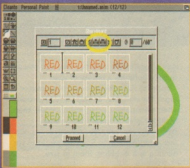
1. Here's an example. Start with a new project, using only a small number of colours. Pick a red brush and draw something bold on the screen.



2. Now open up the storyboard screen, and add more frames until you have about 12. The contents of the new frames will be copies of the first.



3. Go to the twelfth frame, and change the palette entry from red to green. Your on-screen drawing will change too.



4. Back to the Storyboard, and select all the frames in the animation. Click on either of the two blend tools in the Storyboard window, and watch as the previews change. Your colour will smooth change from red to green. Play back the animation to see it happen.

## Scala

Don't forget that you should also have an excellent multimedia tool at your disposal for combining your animations with text, wipes, sound effects and even CD quality music. Yes, Scala and Personal Paint are a brilliant combination. Create your animations in Personal Paint, and then link them together in Scala for the final touch. Scala can replay animations direct from disk (if you don't have enough memory) and lay text on top. Why limit yourself to just one piece of software?



▲ Combine two great CD Animate giveaways: Scala and Personal Paint. You've never had it so good!

so fit more frames into the window or see more detail in each.

From the Storyboard window you can add or delete frames, and control the display time for each one: the fraction of 60th displayed in the top right of the window will define how long in seconds the current frame will appear on the screen.

## Top animation tips

Use the AReX features: Personal Paint can split an animation into individual frames, and recombine the frames into a single animation file. Use this to create files

which are extra large, or to combine animations from different sources, such as a 3D program.

Use image processing: The same Personal Paint AReX scripts can process frame after frame automatically. You could use this approach to blur background frames, or change colours without re-drawing the entire animation.

Use as few colours as possible without compromising your anims: When images are moving, you can afford to skip on details. Stick to a few colours, and as a result you can have longer and faster animations.

Timing is everything and Personal Paint allows individual timing per frame. Don't create fifty identical frames, create one frame which stays on-screen fifty times longer.

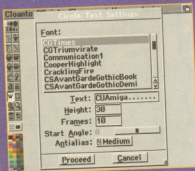
Use Optimise: If you have a favourite animation, try loading it into Personal Paint and selection the Optimise option from the Animation menu. This will look through the file, detecting identical frames and replacing them with a single frame and suitable timing information. This can shrink the size of anim files created with other programs considerably – very useful.

## Animation Hotkeys

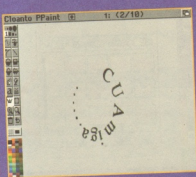
- 1 Previous frame
  - 2 Next frame
  - 3 Go to a specific frame
  - 4 Play once
  - 5 Play continuously
  - 6 Play first in forward direction, then backwards
- Alt 1 AnimBrush previous frame  
Alt 2 AnimBrush next frame  
Alt 0 AnimBrush settings

## Animbrushes

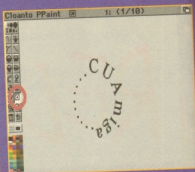
AnimBrushes are a combination of the standard cut-and-paint brushes which you've probably already use many times, and animation files. Think of an AnimBrush as a brush which can store many different patterns. AnimBrushes can be any size, but typically they are clipped from an existing animation, and so are usually smaller than full-screen. These multiple brushes are most useful when you want to paste something which moves into an existing animation. Here's an example.



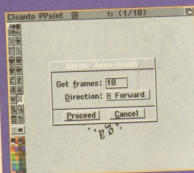
1. Starting with a blank project, use the ARexx tool to select the Circular Text option. Set the number of frames to 10, and this will automatically add frames as they are needed.



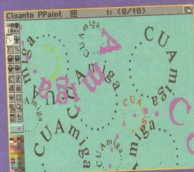
2. Define a small circle, and let the ARexx script do its thing. If you have a reasonably fast Amiga, make sure Anti-alias is switched on for best results.



3. Now clip out the animation as an AnimBrush. Make sure you are at frame 1, and then click on the brush cutting tool until it changes to the image shown. Drag it around the circling text as tightly as possible.



4. You'll be asked how many frames and in which direction the brush be cut. The default values will do fine, so hit OK and the AnimBrush will be made. Now save it from the Animation/AnimBrush menu option.

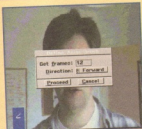


5. Now you can create a new animation, and stamp the AnimBrush down wherever you like. Each time you stamp the brush, it will move to the next design. By clicking and pressing 2 to move to the next frame, you can create your new animation very quickly.

AnimBrushes are very flexible, and you can quickly build-up a library of your favourites. Use them to create animated logos for example, or star twinkle patterns. Their transparent backgrounds make them ideal for adding to existing images. Personal Paint can alter AnimBrushes like ordinary brushes, so don't be afraid to try halving and doubling them in size.



Here's how to take an ordinary full-screen animation and shrink it to a fraction of it's original size. First of all, load the animation as normal.



Now capture the animation as an AnimBrush as before. This time drag out the outline to cover the entire screen.



Use the Brush/Resize/Halve menu option. This process can take some time, depending on the number of frames, speed of your Amiga and so on.



Now create a new animation, and cut and paste the smaller AnimBrush over the screen. Use A-1 and Alt-2 to make sure each instance of the AnimBrush animation starts playing at a different frame. The result is a great pop video effect.





# Amiga C Programming

## PART 11

As the summer draws nearer we get out the duster, give our code a little spring clean and add a touch of user-friendliness.

**T**his month we're going to look at some of the more tedious chores that need to be done to increase the usability of our program. A lot of these enhancements are obvious (and easy to implement), while some may require labourious running and testing our program before their need becomes apparent. And sometimes bad features show up only when other people run your code (hopefully, as beta testers!).

### (Easy) Requesters

The most obviously unfriendly thing is the way that the "Quit" menu item causes the program to terminate immediately. The user isn't given a second chance and their (potential) work of art is lost forever.

So, the first part in our improvement plan is to 'guard' this action with a confirmation requester. The first example on the disks, "req0", adds the small piece of code needed to do this

### Requester

A requester is a transient (short-lived) window that presents information to the user, and maybe enables the user to make a small choice to affect the following activity.

Two examples are the "About" requester (an item on the "Project" menu of Workbench and many other programs) and an ASL file requester (as used in our program for loading and saving images).

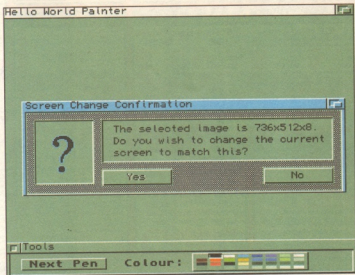
to the "case" for the "Quit" item in "idcmp.c" (see Example 1).

Take care to notice the use of "{...}" to introduce a new scope for the declaration of "myreq". This localises the variable to the small bit of code (the individual "case") that uses it.

Easy Requesters (from the Intuition library) are a nice, simple mechanism for getting choices from the user. At the simplest level, all that's needed is a filled-in "struct EasyStruct".

In the example, the interesting parts are the three strings: the requester title, the message to the user, and the button titles. The latter is specified as a single string with the individual button texts separated by a "|" character. The example "Yes|No" describes two button titles, so the requester will have two buttons: "Yes" and "No".

The "EasyRequest()" function uses this information and pops up the requester on the screen associated with the specified window ("drawwin" in the example). The result of this call is a number indicating which button was chosen: zero for the right-hand button ("No") and one for



▲ Confirming a screen change

the left-hand ("Yes"). (And any extra buttons in the middle are numbered from the left starting at two.)

The body of the "if" will be executed only if a non-zero result is returned by "EasyRequest()". So the final effect is that the origi-

nal "Quit" code will be run only if the user chooses "Yes" on the requester. If "No" is chosen then the "Quit" action is essentially ignored.

Of course, in our efforts to add user-friendliness through requesters, we need to be careful

### Example 1

```
case 5: /* Quit (item 4 is the bar!) */
{
    struct EasyStruct myreq = { sizeof(struct EasyStruct),
                                0,
                                "Exit Confirmation",
                                "Do you really wish to quit?",
                                "Yes|No" };
    if(EasyRequest(drawwin, &myreq, NULL))
        return FALSE;
}
break;
```

## User-friendly

A program is regarded as user-friendly if it works in an obvious and intuitive way and does not perform destructive things without the user's express consent.

Stage one in becoming user-friendly is to eliminate bugs that cause crashes or loss of information. Later stages may be concerned with improving the user interface. The principal goal is ease of use.

not to require user interaction when ARexx commands are being run. For this reason, pretty much all the changes this month are made to the main IDCMP message handling code.

## Modification

Even with our first step forward there's still scope for more friendliness: the user doesn't always want to be bothered by having to restate their desire to end the program, especially if they haven't used it all.

What we need is some way of noticing that the user has actually done something. For our program, this is probably whether they've modified the image.

To be accurate (and friendly), we need to remember when the image is different from something trivial (like a blank canvas) or something on disk. The second example on the disks ("req1") sprinkles code through "drawwin.c", "idcmp.c" and "loadsave.c" to create and maintain a "modified" flag, via a "setModified()" function.

The "if" part of the snippet in Example 1 has been updated to that shown in Example 2, so that the quit confirmation is not forced on the user if the program thinks the image has not been modified.

Notice that the "short-cut" nature of the "if" statement is being used here to simplify the code (as we've seen before): if "isModified()" returns "FALSE" then the "EasyRequest()" part of the statement is not executed (so the requester does not appear).

The place where the image is

modified is the code associated with the "IDCMP\_MOUSEMOVE" message and the ARexx "DRAW" message. These both set the modification flag to "TRUE".

More interestingly, there are places which cause the image to no longer be considered modified. These are the erase/clear function ("new()") and the loading and saving of an image.

The fractal drawing is more problematic. Whether it's considered to modify the image is fairly arbitrary, since its effect is easily reproducible. (For the supplied examples, we've chosen for it not to change the modification state.)

Another couple of changes in the "req1" example are additional confirmation requesters. The code "Load" and "New" menu items have been augmented in the same way as the "Quit" item. In fact, the code is so similar it might be wise to factor out the commonality into some auxiliary function in the same kind of way as we've done before.

So, we've introduced some useful safeguards in program. Simple slips in menu selection no longer throw all the user's work away, and that's got to be a big improvement. But there's still more things that can be done.

## About Versions

Every program ought to have some kind of information box where the user can see vital statistics, like the program's name, version number, author and maybe some

## Beta test

Usually the final stage in a program's development. 'Beta testers' are trusted or otherwise significant users who will run the program in its intended way, trying to locate problems, misfeatures and bugs in both the code and its documentation.

The term 'alpha test' is sometimes used to describe an earlier stage in a program's life, when the program is being tested by the developers or other internal people.

## Example 2

```
/* If the image isn't modified we don't need to ask... */
if(!isModified()) { EasyRequest(drawwin, &myreq, NULL);
    return FALSE;
}
```

## Example 3

```
case 5: /* About (item 4 is the bar!) */
{
    struct EasyStruct myreq = { sizeof(struct EasyStruct),
        0,
        "About",
        "HelloPainter v11.2\n",
        "Brought to you by CU Amiga",
        "OK" };
    EasyRequest(drawwin, &myreq, NULL);
}
break;
```

## Example 4

```
#define PROGRAM "HelloPainter"
#define VERSION "11.3"

static UBYTE* VersionString = "\0$VER: " PROGRAM " " VERSION;
```

## Example 5

```
struct Window* win = getDrawWin();
/* Try to adjust the screen to fit */
if(bmhd)
{
    struct EasyStruct myreq = { sizeof(struct EasyStruct),
        0,
        "Screen Change Confirmation",
        "The selected image is %ldx%ldx%ld\n",
        "Do you wish to change the current\n",
        "screen to match this?",
        "Yes|No" };
    /* Only change the GUI if the user wants to */
    if(EasyRequest(win, &myreq, NULL,
        bmhd->w, bmhd->h, bmhd->nPlanes))
    {
        closeGUI();
        /* If this fails, our local win will then be set to NULL */
        openGUI(bmhd->nPlanes, bmhd->w, bmhd->h, display);
        win = getDrawWin();
    }
}
```

The templates that can be used with "EasyRequest()"

Template	Type	Description
%ld	LONG	Decimal number (32-bit)
%lu	ULONG	Unsigned decimal number (32-bit)
%lx	ULONG	Hexadecimal number (32-bit)
%lc	char	ASCII character
%s	char*	String

contact details. This can quite easily be done with a little requester as well.

The third example ("req2") adds an "About" menu item to the "Project" menu (in "menu.c") and code to handle it (in "idcmp.c", see Example 3). Take care to notice how the message string is split over two lines as two separate, literal strings. This is merely a convenience for the programmer to make the source code more readable; the compiler will join these into one big string.

Version information helps the user keep up-to-date with the latest program. To add this kind of thing in a useful way we need to be compatible with the Amiga's "VERSION" command. Luckily, this needs only to find a piece of text in the program in a particular format.

Example 4 shows the addition

(to "idcmp.c") of a suitable version string to the next version of our program ("req3"). We've defined string constants (using "#define") so that the "About" requester can be consistent and use the same information. When the version (or program name) changes we need to update only one place in our code: the appropriate "#define".

### Screen change

We'll step up a gear for our next requester. When a picture is loaded the screen resolution and depth is changed to match it. This may not be exactly what the user wants and the documentation for the IFF library states that it can handle loading an ILBM into a different size bitmap, so we could give the user the choice of reusing the current screen.

Example 5 shows another

### Example 6

```
if(AddPart(filename, savereq->rf_File, MAXFILENAME))
{
    struct EasyStruct myreq = { sizeof(struct EasyStruct),
        0,
        "File Overwrite Confirmation",
        "The file %s already exists.\n",
        "Do you want to overwrite it?",
        "Yes|No" };

    int exists = FALSE;
    BPTR lock;
    /* Test whether the file exists by attempting a "Lock()" */
    if(lock = Lock(filename, ACCESS_READ))
    {
        exists = TRUE;
        /* Don't forget to "UnLock()" */
        UnLock(lock);
    }
    /* Only save in the suggested file if it's new or the user wants to */
    if(!exists || EasyRequest(win, &myreq, NULL, savereq->rf_File))
    {
        /* Make sure our bitmap is the same as the display */
        SyncSBitMap(win->WLayer);

        /* ...Rest of the code... */
    }
}
```

extract from "req3". The "loadfile()" function (in "loadsave.c") has been updated to include user confirmation. The key points to note are the use of "%ld" in the message text and the additional arguments to "EasyRequest()".

Each "%ld" is a place holder for a number. The actual numbers are those supplied after the

correct size, depth and mode (in the usual way).

But if they select "No", the picture will be loaded over the current image, with any extra screen pixels and bit-planes left untouched. (If we'd wanted to completely replace any previous image we could have first cleared the screen in exactly the same way as the "new()" function.)

"NULL" in the call to "EasyRequest()". This works in much the same way as the standard "printf()" function, with a varying number of arguments and roughly the same "%" templates allowed (in both the message and button title strings). The main difference is that only 32-bit ("LONG") values can be used (see the table).

The end result is that if the user selects "Yes" the screen will be closed and reopened at the

### File-friendly

The final change is to make saving pictures less destructive. At present, saving overwrites any existing file without warning the user. Again, this is a job for a simple requester.

The only technical problem this time is how to test whether the file already exists. The simplest way is to try to get a lock on file (using the DOS function "Lock()"). The last example, "req4", implements this test and user confirmation scheme, as you can see in the code snippet from the "save()" function shown in Example 6.

Well, that's it for requesters. Happy coding and see you next month. ■

Jason Hulance



▲ About the program



# Back Issues

Looking for a specific Amiga article, game review, program, feature, tutorial, or even news story? Your search could well be over...

**FEBRUARY 1997**  
**Disks:** Design Works,  
 Mieskies Farballs plus  
 Worms – the Director's  
 Cut extras and Imagine  
 extras on the CD.  
**Features:** The new ABox  
**Inside:** Wordworth 6  
 Office, Turbo Calc,  
 Mieskies Farballs, Bograts  
 reviewed

The image shows the cover of an issue of Amiga magazine. The word 'AMIGA' is at the top in large, bold letters. Below it, the text 'Graphics Overload' is visible. A large, diagonal red banner with the words 'SOLD OUT' in white capital letters is placed over the right side of the cover. The cover art features various colorful graphics and images.

**MARCH 1997**  
**Disks:** Octamed  
**SoundStudio** (full program) Chaos Engine 2, Chaos Engine 2 AGA demo  
**Features:** Turn your Amiga into a pro studio. Printers, problems solved.  
**Inside:** QuickCam, Cybervision 3D, SMD 100, JetPilot reviewed

**APRIL 1987**  
**Disks:** Directory Opus 5.11 (full program), Tiny Troops demo  
**Features:** Build your own Tower Amiga Part I, The 50 best Amiga Games  
**Inside:** Massive Cinema 4D 3.0 Review, New OTP series, ProGrab Sampler, Teletext Decoder

The image shows the cover of an issue of Amiga magazine. A prominent red diagonal banner across the center contains the text "DISK ONLY" in white capital letters. The word "AMIGA" is visible at the top left in large, bold, white letters. Below it, the text "The Future's Bright!" is written in a stylized font. The background of the cover features various images, including what appears to be a computer screen displaying a game or application, and some abstract digital graphics.

**DISKS:** Image Studio (full program) Korgos RPG, exclusive clipart on CD  
**FEATURES:** The Future's Bright: Gateway buys Amiga! Tower Amiga Part 2  
**INSIDE:** PageStream 3.2, Big Red Adventure, LightWave 5, Epsos Stylus 600...

The image shows the cover of an issue of Amiga magazine. A large, bold, red diagonal banner across the center reads "DISK ONLY" in white capital letters. The background of the cover features a computer monitor and keyboard, with the word "AMIGA" at the top in a large, stylized font. Below it, the text "Gateway To The Millions" is visible. The overall design is typical of 1980s computer magazines.

**JUNE 1997**  
**Disks:** Pro Page 4.1 (full program) MPEG 2.4, Sysinspector, The Sun game & more!  
**Features:** CD-R for Amiga – cut your own CDs for a few hundred pounds plus  
**Tower Amiga Part 3:** Zorra  
**Inside:** Turbo Print 5, Net Connect, Coherision

**Disks:** Free Net software: Quarterback 5.1 inc OB tools, Big Red Adventure  
**Features:** Total Internet Solution, the history of the Amiga & a look at Amiga artist, Eric Schwartz  
**Inside:** Final Writer '97, Siamese BTG 2.0, Burn It

**AMIGA**  
Crack the Code  
DISK ONLY

**AUGUST 1987**  
**Disks:** Dogfight, Turbo  
 Print 5 Lite, Storm C  
 Compiler  
**Features:** Power PC is  
 coming, Crack the Code,  
 plus Power Gaming  
**Inside:** Cinema 48,  
 Voyager HG 2.98,  
 iBrowse 1.12 & Tower  
 add-ons...

The image shows the cover of Amiga Vista magazine. A large red diagonal banner across the center reads "DISK ONLY". The magazine title "AMIGA" is at the top left, and "Vista" is below it. The cover art features a colorful, abstract landscape with a large, stylized figure in the foreground.

**SEPTEMBER 1997**  
**Dicks:** Sixth Sense  
 Investigations, Vista Pro,  
 MakePath, GeoMorph  
**Features:** New Faces of  
 Amiga Gaming, Amiga:  
 The Next Generation, DIY  
 Sound Card  
**Inside:** Art Attack 2, Art  
 Studio 2.5, Micronik ge-  
 locks, Flying High

The cover of Amiga magazine TEX, issue 114, is shown. The title 'AMIGA' is at the top in large, bold, black letters. Below it, 'MAGAZINE' is written in smaller letters. The main title 'TEX' is in very large, bold, black letters. Below the title, the text 'The world of software, from simulation to sports' is visible. The cover features a photograph of a jet fighter in flight. The issue number '114' is prominently displayed in a large, stylized font. Other text on the cover includes 'Special: The Amiga 500' and 'The Amiga 500: A new look at the classic computer'.

**OCTOBER 1987**  
**Disks:** TFX, TB 383  
 Emulator, Virus Z, Video  
 Easel, Visual Prefs  
**Features:** TFX: Quickstart  
 Guide/Techniques & Tips  
 etc., Suzanne: The  
 Portable Amiga  
**Inside:** Fusion Mac  
 Emulator, Civilization,  
 MII EZ Tower, Storm C

**NOVEMBER 1997**  
**Disks:** Draw Studio 2 Lite  
**AIR Link Software**  
**Features:** D.I.Y. AIR Link,  
 Aladdin 4D V5.0, Hydra  
 AT200 Ethernet, Sensible  
 Golf  
**Inside:** Epson Stylus  
 Photo, GuyPatcher, More  
 TFX Tips, Visual IFX,  
 Emvex 2.0.

The cover of Amiga magazine features the title 'AMIGA' at the top. Below it, the word 'MYST' is prominently displayed in large, stylized letters. A small inset box on the left side of the cover contains the text 'PC look 2.1'. The background of the cover shows a scene from the game Myst, with a character standing in a misty, ancient environment.

**DECEMBER 1997**  
**Disks:** PC Task 3.1, Dir Work 2.1, Workbench enhancements; icons, backdrops etc.  
**Features:** Myst, PowerU First look, ISDN: The Net on speed  
**Inside:** Imaginer, HiSoft Squirrel CD-R, Sharp MD MS200 Minidisc

The image shows the cover art for Amiga Workbench 2000. It features the 'AMIGA' logo at the top in a stylized, colorful font. Below it, the text 'WORKBENCH 2000' is prominently displayed in large, bold, blue letters. The background of the cover art depicts a desktop environment with several windows, including a file manager showing a directory tree and a graphical user interface with various icons and a mouse cursor. The overall aesthetic is characteristic of early 1990s computer software packaging.

**JANUARY 1998**  
**Disks:** PPaint 5.5, Trapped  
 3 Demos, Sound Samples.  
**CD Demos:** Sound Probe,  
 Foundation  
**Features:** 1997 Review,  
 Workbench 2000,  
 Remixing with the Pros  
**Inside:** Cyberstorm PPC,  
 Picture Manager Pro,  
 Appollo 630, Urepa 2

The cover of Amiga magazine features the title 'SCALA' in large, bold, black letters. Above it, the word 'AMIGA' is partially visible in a stylized font. Below 'SCALA', the text 'PART 300' is visible. A large, stylized graphic of a pen writing on a document is the central focus. The pen is blue and yellow, and the document is white with a grid pattern. The overall design is colorful and dynamic.

**FEBRUARY 1998**  
**Disks:** SCALA MM300,  
 Sword Demo, 500 Mb of  
 Tools, Mods, Graphics  
**Features:** Amiga Forever  
 Emulator, The Big Switch  
 (PowerPC), CDDA Mixer  
**Inside:** Apple II Emulator,  
 Distant Sens CD, Power  
 Tower, Input Devices  
 Read-Up

[illegible]

**MARCH 1998**  
**Disks:** Doom, NetPSM,  
 Cartoon Studio, AmIRC,  
 VirusChecker III  
**Features:** Amiga: Next  
 Generation, Stars of '97,  
 Duke  
**Inside:** TurboCalc, HiSoft  
 C++, WebFTP,  
 Pagestream 3.3, Ultimate  
 Super Skidmarks

[illegible]

**APRIL 1998**  
**Disks:** Shapeshifter, Mac  
 Emulator, PowerPC Boom  
 New Soundtrackers  
**Features:** Take it to the  
 Macs, Millennium Bug,  
 PowerPC Update,  
 PowerPC Winners  
**Inside:** X-BVE 3.01,  
 Siamese RTG, Doom Level  
 Round-Up, Feet Machine

[illegible]

**Disks:** Interactive Fiction, Snake Demo, SBase4Pro, PowerPC Software  
**Features:** The Big Amiga Poll, Digital Cameras, Interactive Fiction.  
**Inside:** Blizzard PPC Card, Elastic Dreams, Fusion 3.1, Wordworth 7, Picture Manager Pro

## Priority Order Form

Complete this form and send it with your payment to: CU Amiga Magazine Back Issues, Tower Publishing, Tower House, Severn Park, Lathkill St, Market Harborough, Leics, LE16 1EE. Tel: 01858 435 350.

Please rush me the following issues of **CU Amiga Magazine**

[illegible]

Please allow at least 28 days for delivery upon receipt of request. All orders subject to availability.

**☎ 01858 435 350**

Rates: UK: £5.50 Europe and rest of world: £6.50. Except for CD-ROM editions: UK £6.99 Europe and rest of world: £7.99. All prices include postage and packing. Disks/CDs are included with all orders. CD edition is available for the April 1996 issue, and monthly starting from the November 1996 issue.

### Method of payment

☐ Visa    ☐ Amex    ☐ Access    ☐ Diners Club card    ☐ Cheque (if Sterling)

Card no ..... Expiry date .....

Signature \_\_\_\_\_ Date \_\_\_\_\_

Title \_\_\_\_\_ Initials \_\_\_\_\_ Surname \_\_\_\_\_

Address .....

Postcode .....

Daytime telephone number (including STD code)

# Surf's Up!

I'll have spam, spam, spam, spam, spam, spam, spam, spam - spam, spam and more spam (c'mon, it was going to appear sooner or later wasn't it).

## Spam ahoy

While the amount of spam (irrelevant messages posted to multiple newsgroups) on Usenet is increasing, much of it is hidden from users by spam cancellers. These are programs that scan the newsgroups for spam messages and then send out cancel messages, causing the spam to be deleted from news servers. The organisations operating these services now feel that ISPs are taking less notice of spam, because of their efforts, quoting figures like 40% of Usenet posts are spam and another 40% are cancel messages, leaving only 20% for genuine traffic.

As a result, they have decided to call a temporary, but indefinite, halt to their activities. From the beginning of April they are no longer cancelling spam. This means that unless your ISP takes their own anti-spam measures, you could start receiving a lot more. This puts the ball in the ISP's court, so if you ever felt like complaining about the spam you receive, now is the best time to do it.

Promote Responsible Net Commerce: Fight Spam!



## NetGod speaks

I see the start of a disturbing trend in Amiga Internet software, that of programmers ignoring standards and setting their own. Adding custom tags to an email program to alter the display of messages in that program only is not the way the Internet is supposed to work.

It's bad enough when our browser programmers are struggling to keep up with the flood of new HTML "standards" introduced by Netscape and Internet Explorer, without introducing incompatibilities between our own programs.

Email is more about communicating information. When I read a message, I want to know what the writer is saying, what he/she is thinking. So much is lost in the transfer from spoken word to written word, let's not hide any of what little meaning remains by cluttering it up with meaningless formatting codes etc.

The same applies to quoting and monstrous signatures. What is the point of taking the time to compose a message with meaningful content if you then place obstacles between your message and its recipient. Magazines get flooded with complaints if they do something like printing light coloured text across a light coloured photograph.

If it's worth saying, it's worth saying intelligently, the old sixties slogan of "the medium is the message" definitely has no place on the Internet.

## World Of Amiga

The 1998 World of Amiga Show takes place a few days after this issue is published. It seems likely that there will be some sort of announcement from Amiga International at the show, so if you cannot make it in person, keep an eye on the main news sites, such as CU Amiga Online and Amiga Web Directory. World of Amiga also has its own web site, at <http://www.cu-amiga.co.uk/woa/>

## Aminet

Once again, the main Aminet site has suffered a hardware failure. While the mirror sites carry on working whenever this happens, there are no new uploads sent out to these sites. This time, the main German site took over the central duties for a while. Files



## Browser updates

Both IBrowse and Voyager have seen recent updates, available from their respective web sites. Voyager 2.95 is an update for both registered and unregistered users. IBrowse 1.2 is available only to owners of the complete version.

Both have had several changes, improvements and bug fixes, and Voyager is noticeably faster here, although there is still no sign of JavaScript support for either of

uploaded there or to other sites were mirrored across the Aminet network, although the mailing list still didn't work. Hopefully this means Aminet is becoming less dependent on the central site to keep working, which can only be a good thing as the number of files available continues to increase.

## Saku 98

The newsgroups and mailing lists are buzzing with interpretations and



them. They both now have the facility to decode images in fast RAM, even without a graphics card, which should eliminate many of the problems people experience with graphics intensive sites.

There has also been a recent release of inline image decoders for AWeb, finally freeing it from its dependence on datatypes.

rumours based on a speech by Petro Tyschtschenko at Saku 98 in Finland, in which he is alleged to have said "OS 3.5... we are trying to integrate Netscape". Unsurprisingly, this has generated a great deal of comment, opinion and hot air, but we'll just have to wait for a formal statement on the contents of 3.5. Petro is also reported to have stated that AI will "present our new concept for Amiga developers" at the World of Amiga show. Is the waiting nearly over? ■

Neil Bothwick



# Surf of the Month

Neil Bothwick goes browsing the web - he's given up surfing because he keeps falling off the baud! (arf-arf.)

**B**y way of change we are going to move away from Amiga specific pages to areas of more general interest in this edition of Surf of the Month.

## Football, you can't escape it.

The finale of the English football season, the FA Cup final, coincides with the publication of this issue and the World of Amiga show, so this seems a good time to mention



the site that contains a wide range of information, the site of the main sponsors of the Premier League, Carling. With its comprehensive results and statistics, as well as projected tables and archives of previous years. It's also ideal for settling arguments or cheating at a pub quiz.

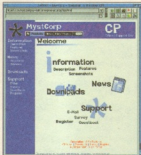
On a more global scale, there are several sites dedicated to World Cup 98. The official one is at <http://www.worldcup.com>, with authoritative information on schedules, ticket sales etc. But for really



F1 Art & Genius

interesting trivia you really need to visit the unofficial sites, such as <http://www.wldcup.com>

Staying with sport for while, there are a lot of Formula 1 Grand Prix enthusiasts on the Internet. I suppose it's a techno thing (no Tony, no that sort of techno), with both computers and F1 having an appeal to fans of technology. There are a



Mystique Corporation

huge number of F1 sites, from the very good to the pretty dire, at the top end of this scale is "Formula One Art & Genius". It is a well constructed site with good graphics and plenty of in-depth information, by someone with an obvious love for the sport.

Another good source of Formula One information can be found on Yahoo. This is not an "enthusiast" site, instead it contains lots of factual and up to date information, including qualifying time and race results, as and when they happen.

## URLs

FA Carling	<a href="http://www.fa-carling.com">http://www.fa-carling.com</a>
World Cup 98	<a href="http://www.worldcup.com">http://www.worldcup.com</a>
Greeting cards	<a href="http://www.shoobox.com/funny/funny.asp">http://www.shoobox.com/funny/funny.asp</a>
Mike's Web Resources	<a href="http://www.u-net.com/mike">http://www.u-net.com/mike</a>
F1 Art & Genius	<a href="http://www.f1-grandprix.com">http://www.f1-grandprix.com</a>
Yahoo F1	<a href="http://www.yahoo.co.uk/f1-live/7http://www.f1-live.com/GB/">http://www.yahoo.co.uk/f1-live/7http://www.f1-live.com/GB/</a>
reallybig.com	<a href="http://www.reallybig.com/default.htm">http://www.reallybig.com/default.htm</a>
Mystique corporation	<a href="http://www.mystcorp.u-net.com">http://www.mystcorp.u-net.com</a>
CU Amiga Online	<a href="http://www.cu-amiga.co.uk">http://www.cu-amiga.co.uk</a>

## It'll be alright on the Birthday?

Have you ever looked at a so called "humorous" greeting card and thought "I could do better". Well there is now a site by a major greeting card company showing the efforts of some of the people who thought just that. Shoobox is a division of Hallmark, and their web site includes a selection of "out takes".

If you think a good greeting for a birthday card is "Happy birthday to a great kid. Hope it's more fun than ripping the spinal cord out of some video game character" this is the site for you.

## Web resources

While many people are happy to browse other web sites, sooner or later many feel the need to create their own. However, after spending so much time looking at high quality sites, with impressive graphics, you wonder how you will ever manage to create something that looks good. As always the solution is on the web. There are many sites of WWW resources, from simple graphics for buttons and backdrops, to extensive tutorial on HTML and freely distributable CGI and JavaScript scripts.

Whatever you need, the chances are it's waiting for you somewhere. Mike's Web Resources started as a collection of graphics and links on a home page and just kept growing. There is now a huge collection of graphics, HTML examples and just

about anything you need, including a form to type in some text and have it sent back to you as a 3D rendered logo. Reallybig.com is as big as its name implies, with a massive set of resources and links to other sites. Not only graphics and tutorials, but scripts, hit counters, logging tools and much more.

## Educational Amigas

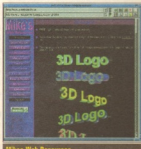
One area where the Amiga has always been lacking is in educational software. This is an extremely important area since it is often used as a justification for buying a computer in the first place.

One company working to correct this omission is Mystique. Their site is sponsored by Amiga International, showing the importance they place on this market. The site contains information on their products, together with news and a section entitled "Kids Pages". ■

Neil Bothwick



Hallmark



Mike's Web Resources

# Wired World

**STFax is a fine fax program. Now we investigate its other talents by setting up a voicemail system.**

**W**ith a name like STFax, it's not hard to guess that this is a fax program. However, it has several other functions too, such as voicemail. Now you can use your Amiga as anything from a basic telephone answering machine to a pretty sophisticated voicemail system, with multiple mailboxes, faxback and much more.

We will look at the features available and how to integrate them into a script, you can then pick and choose which of these are relevant to your needs.

## Basic telephone answering

Before we can use STFax for voice messages, we need to check a few preferences settings. In the Misc section, turn on Auto Answer and set Mode to either Voice Only or Fax/Voice. In the Timeout section, set the modern timeout to the lowest figure that doesn't cause errors. Start at 3 and work up or down from there. A high timeout can result in STFax taking longer to answer incoming fax or voice calls.

Once you have saved the settings, you can select Voice Settings from the Voice menu. STFax comes already set up for basic telephone answering. All you need to do is record some messages. STFax insists that you record certain "system" messages, although these will not be used in a simple answering machine script. The important message is the one you use for your greeting, something like "I can't answer the phone right now, please leave a message". You should already have a default voice box and a script that consists of a single command, RECORD MSG. Double-click on this and select the greeting message you previously recorded. Save the script and you are ready to go.

The best way to test your script is to call from another phone. If you are a dedicated nethead with two

phone lines, or you have a mobile phone, this is easy to do. The Script editor also has a test mode to check out your scripts, but it is still best to do a final test from another phone. This is important when we move onto more advanced scripts.

## Other features

Apart from a basic answering system, STFax has many other voicemail features, let's have a look at the main ones before looking at how they can be integrated into a system:

### Menus

Present the caller with a list of choices that they select from using the buttons on their phone

### Multiple voice boxes

Callers can leave messages for different people, so each person gets only their own messages

### Call Operator

Alerts the user of an incoming call, if there is no answer it returns the caller to the menu to leave a message

### Faxback

Send documents to anyone calling from a phone attached to a fax machine (or faxmodem)

### CallerID

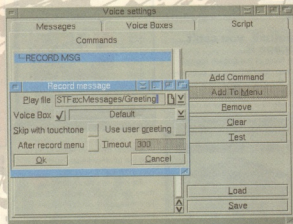
Use different messages for callers from specific numbers. Handy if you want to pass a message to someone but have to go out. Just record the message and attach it to their phone number

### Call screening

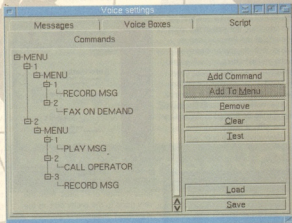
Used in conjunction with CallerID, gives priority to or blacklists specified numbers. Useful for blocking calls from telesales companies (or production editors hassling you for copy)

### Remote access

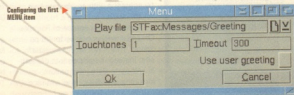
Each user can call in and hear the messages in their password protected voice box



▲ A basic answering machine script



▲ This is the completed script





## Voice modems and CallerID

Not all modems support all the features of STFax. Some modems have limited voice features, or poor recording quality. It's worth checking this when buying a modem. CallerID also relies on support from the modem, and the UK system is different from the International standard. To use the CallerID features in Britain, you need a modem that supports the UK system, whereas most modems should work with other countries' systems.

password. The passwords will enable you to listen to the messages from another phone. You will need to create a directory for each to store its messages, say Messages/0001 and Messages/0002. Now you have the messages and mailboxes ready, click on the Script tab to build the script. The default script has a single item of RECORD MSG, remove this to start with an empty script.

### Creating the script

The flow chart starts with an initial greeting, leading to a choice. Click on Add Command, select MENU from the list and select your introductory message for Play file. Set Touchtones to 1, to have the menu wait for the caller to press a single key on the phone. Select the new menu, click on Add To Menu, and put "1" in the ID field. This is the section that will be executed when the caller presses "1" at this menu.

The caller has to make another choice here, so add another MENU, with the appropriate message, and another "1" option. Select the new entry, click on Add Command and then RECORD MSG. Enter the relevant message file here, tick the voice Box gadget and select the Sales box. When the caller presses "1" at this menu, they will be asked to leave a message that will be stored in the Sales voice box.

The next option is to receive a document by fax. Reselect the previous MENU entry then Add To Menu, give this one ID 2. Select the new entry click on Add Command and then FAX ON DEMAND. You can have several previously created faxes available here, give each one a different ID number and list them, with their IDs in the message file you play from here. If only one fax is available, the user still needs to press a key to start the transfer. As before, set Touchtones to 1.

Now go back to the first MENU entry, select Add To Menu and ID 2. Once again this leads to another menu, this time with three choices, so create the new MENU and select Add To Menu three times, with IDs

1, 2 and 3. The first option is to hear a recorded message, so select "1", and use Add Command to add a PLAY MSG item with the appropriate message. For the second option add a CALL OPERATOR. This will notify you that someone wants to speak to you, and play a message to the caller while waiting for you to answer. If you do not answer within the Timeout period, STFax will play the No Operator message and return to the previous menu. The third option on this menu is another RECORD MSG, this is for the caller to select if the Call Operator fails. Set it to use the Support voice box.

This way you can have your voicemail system divert some calls straight to the recording system, while passing others through for personal attention, when available.

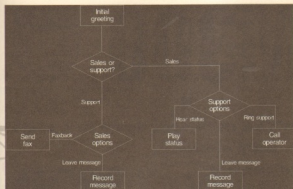
That's it, the script is finished and will be ready to use once you've tested it. Make sure you set touchtones to 1 wherever there is this option and that all message files have been correctly set up.

### Using STFax for your own needs

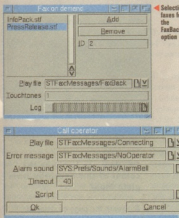
This example demonstrates the use of the main voicemail features of STFax, in a way that can be adapted to most business or family situations. Once you have it set up, it should be fairly easy to adapt to your own needs. ■

Neil Bothwick

There are many other things you can do, especially with the addition of some AREXX. For example, you can have STFax automatically email received messages or faxes as they come in. It should also be possible to use AREXX to send a message to a pager whenever a message is recorded. Instead of ringing in to keep checking for messages, you only call when you know there are messages to be collected.



▲ A Flow Chart makes organising and modifying your voicemail system so much clearer



▲ The Call Operator function

### More complex example

Now let's build a script using the main features. Although this example is for a business use, it can just as easily be used in a family setting. We'll use the example of an "imaginary" ISP who wants to handle a variety of calls out of normal office hours like this:

- Separate sales and support calls from each other
- Give sales enquirers the option of leaving a message or receiving literature by fax
- Allow subscribers to listen to a pre-recorded status message
- Give subscribers the chance to speak to a member of the support staff if available, or leave a message otherwise

Before we can create the script we need to work out exactly what will happen to each caller and then record the various messages. So before you reach for your mouse, pick up a pencil and paper instead.

Our example system makes it simpler to understand what is going on.

The next step is to prepare the messages. Once again, write each message down to make sure it is clear and suitable. Think about the order in which you present menu options. A new caller will not want to listen through several options before being offered the most basic choices, so put those first. A regular caller may know which choices he wishes to make and will be able to interrupt the menu message, so there is no time lost in putting those options later.

Once you've outlined the script and messages, it's time to put it all together. Select Voice Settings from the Voice menu and record your messages in the Messages section, either recording them direct or importing previously sampled files.

This example uses two mailboxes, so click on the Voice Boxes tab and add two new boxes called Sales and Support, with IDs of 1 and 2 respectively and give each one a

# Scala MM300

PART  
4

It might look rather basic, but don't be deceived: Scala has some really advanced tricks up its multimedia sleeve.

We saw last month how it could control your home TV and hi-fi using the power of ARexx and the Airlink Infrared interface, and that's only the start.

This month however we give over the tutorial to answering some of the many questions which you've asked about using Scala to create your own projects. If you've created any exciting scripts, why not send them into the magazine office, so we can put the best on the CU Amiga coverdisk?

## Questions and Answers

### Q1. What's the quickest way to make a slideshow?

**A.** Start with a blank project, and click on New. This will bring up the background selector. Find the directory with all the images you want to appear in the slideshow.

Now select them all in one go, by holding down the shift key as you click on them. When you click on OK, all the files will be loaded as new pages in your script.

### Q2. How can I apply the same wipe quickly to a collection of pages?

**A.** Click on the Wipe slot in the first page in the collection you want to change. When the usual Wipe win-

dow appears, select your the wipe you want to use. Before you click on OK, make sure there is a tick on the "To End" button. This will alter the wipe settings on all the subsequent pages. You can do the same thing to alter the Pause setting.

### Q3. Can I alter the pre-set wipes?

**A.** Yes, although not all to the same extent. When selecting the wipe you want to use, try pressing on the following keys. Notice too that using the numeric keypad it is possible to change the direction in which some of the wipes operate.

- i Ease in
- o Ease out

- d Damped
- b Backwards
- c Clear page before wipe
- t Transpose - turn the wipe 90 degrees
- s Soft fade - fade the display slightly during the wipe

### Q4. How can I create a blank backdrop for my scripts?

**A.** If you want a backdrop which doesn't consist of an IFF picture backdrop, here's what you do.

1. Assuming your script is empty, click on New to create the new page.
2. You'll be placed in the usual "Select a Background page" requestor.
3. Don't select any pattern, just click on "OK". You can now select the screen resolution and colour depth for Scala to use.

You can now add your own details, if required, using the drawing tools.



### Q5. How can I change the colour of this backdrop from plain blue?

**A.** Create the page as detailed above. Now click on the Palette button, and you'll bring up a new window. One of the options will be Background. Select a colour from the horizontal colour stripe, and then click on the Background button.

### Q6. How can I add two sound effects to the same page?

**A.** Add the first sound effect in the usual way; click on the Sound button in the script list, and select the sound effect. Now click in the sound slot in the blank line directly underneath your first page, and add the second sound effect.

### Q7. Can I use other Scala Scripts inside my current project?

**A.** Yes. This is a great way of organising your work. If you have created a great introduction script, you can use it in your other projects by simply including it as a page



of its own. Save the script you want to use in other projects, giving it a sensible name.

From your new project, click on New as though you were going to add a new page as usual. Click on the Scripts button and locate your saved script. The new project will display the script on a single page, even if it consists of dozens of its own pages.

This makes it easy to drag and drop it to change the order it is played in.

#### Q8. How can I adjust timing to sync my slideshow to music?



A. Scale allows you to select the timing for pages in an interactive way: you can watch the presentation and click on the mouse when you want the pages to change.

To set this up, click on the Pause button and adjust the time setting to read "Record Timing: All". Then click on this button, and your script will start running. Click the right mouse button every time you want a page to change.

#### Q9. Can I make my own buttons in the file requestor?

A. If you find yourself constantly loading from a particular location, from CD for example, it can be a real time-saver to create a new button. From the file requestor, locate the directory that you want to use.

1. Now click on the empty button at the bottom of the list on the right hand of the screen
2. You'll be asked to enter a new name, and select a colour for the button
3. That's it! Your new button will be added to the list.

#### Q10. What does Genlock mode do in the System Menu?

A. Genlock mode forces Scala to display its menu in a transparent way, so you can see the video signal underneath. By default the menus are solid.

#### Q.11 What's the difference between Dynamic and Static page buffer?

A. This is another setting in the System menu. If you use a Static buffer, all the images and sounds required by a script will be loaded before it starts playing.

This can obviously take up a lot of memory, but the result is much faster and smoother. By default, the setting is Dynamic, and so pages are loaded and purged as required.

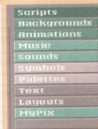
#### Q.12 How can I make a line of text scroll across the screen?

A. To make text crawl along the screen, create a new page and type in a line of text in the usual way. Highlight the text and then select the IN wipe button on the editing screen.

This will bring up the Text Wipe display. Now select one of the two crawl wipes. The first wipe will scroll the background too: this is smooth but can destroy your carefully drawn background.

Try the second crawl wipe instead, although with some backgrounds (those with lots of colours) or larger fonts this can flicker slightly. ■

John Kennedy



## Keyboard Shortcuts

### Main Menu

F1 / cursor up	Previous event
F2 / cursor down	Next event
Shift F1 / cursor up	First event
Shift F2 / cursor down	Last event
R Amiga Q	Quit
R Amiga N	New
R Amiga E	Edit
Right Amiga and D	Delete
DEL	Delete
Space	Run
R Amiga R	Run
R Amiga L	Load script
R Amiga S	Save script

### Edit Menu

F6	Select / Deselect all objects on page
F8	Anti-alias level
F9	Show / hide boxes
F10	Redraw screen
R Amiga K	Change to lower / upper case text
R Amiga -	Change text justification
R Amiga X	Cut
R Amiga C	Copy
R Amiga P	Paste
R Amiga V	Paste
R Amiga Space	Show
R Amiga A	Copy attributes
R Amiga G	Give attributes
R Amiga J	Depth arrange
R Amiga H	Halve brush / drawing tools
Shift R Amiga H	Double brush / drawing tools
Shift R Amiga X	Double brush / drawing tools width
Shift R Amiga Y	Double brush / drawing tools height
R Amiga ,	Pick colour
R Amiga [ or ]	Change selected colour
HELP	Hide / show edit menu
ESCape	Stop drawing tool operation

## Testing one two three four five six fleece was white as snow and eve

### Wipe: BgCrawl



# Reviews Index

**T**here's no need to go searching through countless magazines trying to locate a specific product review. We've compiled all of the technical & game software reviews from the last two and a bit years up to the March '98 issue of CU Amiga.

We're alternating between two categories in subsequent issues: this month we've got games and CD-ROMs, next month we'll switch the index to productivity software and hardware. We'll also give updates from each month as they happen.

Bear in mind that the scores listed are the original scores awarded to the products at the time of their reviews. These should be taken as a rough guide only, as they are all relative to the rival products and prices that were available at those times, which may have changed since.

If you would rather see us re-rate the products with hindsight and in context with newer rival products, let us know. Likewise, if you would like any other specific info or service from this index then please feel free to give us your opinions on the back of a postcard or sealed envelope.

The first ten to put their thoughts into words will get a Wizard Mouse free of charge. This 3-button mouse was accidentally left out of our recent Input Device round-up, which was ironic, as it would have been the highest scoring product of them all! Anyway, write to:

Wizard Mouse Compo,  
CU Amiga,  
37-39 Millharbour  
Isle of Dogs  
London  
E14 9TZ

Title	Type	Comment	Review Date	Score
<b>CDs</b>				
Light ROM 5	3D objects	A good collection of objects and textures for the amateur renderer	Oct 97	89%
Dinosaurs ROM	3D objects	Very professional objects of a range of dinosaurs	Oct 97	88%
Multimedia Back drops	Backdrop pictures	The artwork is of high quality but it's dull	Jan 97	62%
Card Games	Card games	Not just card games but others such as Monopoly and Chess	Feb 97	80%
DEM ROM	DEM Files	Over 1000 DEM maps of North America	Oct 97	84%
Euro CD	Demos	If you like art and sound demos you will love it	Feb 97	88%
Geek Gadgets 2	Development tools	There is a lot going on this disc but it is for hard-core coders only	Sep 97	84%
Amiga Repair Kit	Diagnostics	Not much for the money but Disksalv is very powerful	Feb 97	71%
Epic Interactive Encyclopedia	Encyclopedia	A really worthwhile disc	Apr 97	91%
The Learning Curve	Encyclopedia	A very impressive resource	Jan 97	93%
Epic Encyclopedia of the Paranormal	Encyclopedia	Very polished but a little shallow	Jul 97	87%
Fontmania	Fonts	A best buy for fonts	Jan 98	90%
The Games Room	Games	If you don't have a collection just yet this is going to be the best you can get	Jan 98	90%
Scala Plug-in	Graphics for Scala	Anyone seriously using Scala can never have enough resources so get this	Sep 97	88%
Imagine 3D PD	Imagine objects	If you are an Imagine user this CD could save you some time	Jan 97	88%
Into the Net	Internet	Full of Internet tools and loads of sample web pages	May 97	91%
MIDI Net	MIDI files	Basically a massive collection of MIDI files	Oct 97	78%
Amiga Desktop Video CD2	Pictures and sounds	Full of pictures, fonts and sounds to use in your presentations	Mar 97	90%
The Hidden Truth	Reference	Not quite polished enough but lots to explore	Jul 97	90%
History of the World Cup	Reference	A football fan's delight	Jun 97	90%
17bit Level 5	Various	There are so many files on here there is bound to be something for you	Mar 98	81%
Virtual Computer Pets	Various	A large collection of Tamagotchi type programs along with various pics	Mar 98	86%
Aminet 21	Various	More of the latest downloads from Aminet	Jan 98	89%
Aminet 20	Various	More of the latest Aminet downloads	Oct 97	91%
Amy Resource European Edition	Various	A good selection of commercial software along with the usual demos	Oct 97	92%
Aminet Set 5	Various	The ultimate CD collection	Oct 97	94%
Aminet 19	Various	More of the latest downloads from Aminet	Sep 97	88%
Epic Collection 3	Various	This CD seems to have a something from each Epic CD so there is plenty	Aug 97	82%
AGA Experience Vol. 3	Various	Packed with demos games and animations there is something here for all	Aug 97	91%
AGA Toolkit 97	Various	The amount of stuff on this CD is truly awesome	Apr 97	92%
Aminet Set 4	Various	Unless you have been collecting the single Aminet discs this is a must	Apr 97	92%
Meeting Pearls 4	Various	Similar to Aminet but more technical	Mar 97	88%
Aminet 15 & 16	Various	Another selection of the latest Aminet downloads	Mar 97	90%
Euro CD 2	Various Demos	A strong collection good for someone starting their CD collection	Sep 97	85%
Aminet 14	Various Demos	Not the most impressive Aminet CD but still excellent	Jan 97	90%
System Booster	WB Utilities	There are 2000 utilities on this CD that will improve your system	Feb 97	92%
Web Explosion CD	Web clipart	Superb web design package	Apr 97	92%



Title	Type	Comment	Review Date	Score
<b>Games</b>				
Wyst	Adventure	A superb game which looks great too	Feb 98	92%
The Strangers AGA	Beat 'em up	Lots of fancy dressing around a basic beat 'em up	Oct 97	60%
Master Axe	Beat 'em up	Not quite up to SF2 but still good	Apr 97	76%
Fighting Spirit ECS	Beat 'em up	Basically the same as the AGA version	Feb 97	82%
Fighting Spirit	Beat 'em up	The best SF clone on the Amiga	Jan 97	83%
Ultimate Gloom	Doom style	Disappointing third installment but the originals still cut it	Jan 98	80%
Fears CD	Doom style	Well worth a look if you like blowing away cartoon octopi	Dec 97	85%
Remac IV	Doom style	Not particularly original but playable and polished	Sep 97	85%
Trapped 2	Doom style RPG	Sophisticated graphics plus a great game!	Nov 97	92%
Trapped	Doom style RPG	A good concept but poor execution	Aug 97	79%
The Shadow of the Third Moon	Flight sim	A superb game which looks great too	Jan 98	92%
GunsHIP 2000	Flight Sim	It is guaranteed to keep you up every night	Oct 97	90%
Dayflight	Flight sim	So badly programmed not even die hard fans would like it	Mar 97	30%
B17 Flying Fortress	Flight sim	What it lacks in excitement it makes up for in atmosphere	Mar 97	79%
Jaglot	Flight sim	Detailed sim that lacks speed	Mar 97	66%
John Barnes Football CD	Football	This game should never have been given a re-release	Dec 97	20%
FIFA Soccer	Football	It looks great in the screenshot but frankly it's rubbish	May 97	50%
Sensi World of Soccer 96-97	Football	Still the best footy game on the Amiga	Jan 97	95%
Strip Pot CD	Fruit machine sim	Cheap tasteless and very sad	Dec 97	2%
Sensible Golf	Golf	If you are looking for a game that will give you a good laugh this is it	Nov 97	87%
PGA Tour Golf	Golf	This is an essential buy for all sports fans	May 97	93%
Championship Manager 2	Manager sim	If it used modern spec Amigas it would score much higher	Dec 97	70%
Euro League Manager	Manager sim	OK to look at and fairly playable(jsh)	May 97	51%
Pinball Brain Damage	Pinball	A few new tricks but the older dogs are still tops	Mar 98	65%
DeEscape	Platform	Art or computer game? Who cares when it's this much fun!	Feb 98	92%
Impossible Mission 2025	Platform	The game is a bit easy but still fun	Feb 97	80%
Vital Light CD	Puzzle	Vital Light is one of the very best pseudo Tetris games around	Dec 97	88%
Marbleous	Puzzle	If you're looking for a challenging puzzler look no further	Jul 97	63%
Big Red Adventure	Puzzle	A must for people who loved Monkey Island	May 97	90%
Blockhead	Puzzle	Puzzle fans will enjoy, otherwise steer clear	Apr 97	67%
Minkies Furballs	Puzzle	Excellent Tetris Clone	Feb 97	88%
Street Racer	Racer	Fun and varied racer best played with a few friends	Nov 97	97%
Flying High	Racer	Great looking game unfortunately no gameplay	Sep 97	68%
Road Rash	Racing	This game doesn't have lasting appeal but is good in the short term	May 97	72%
Legends CD	RPG	This one will keep the RPG fan going for quite a while	Dec 97	75%
Blade	RPG	The hack and slash aspect is fun but it can leave you feeling empty	Dec 97	86%
Sword	Shoot 'em up	Nice try but in the end Sword doesn't quite cut it	Feb 98	78%
Final Odyssey	Shoot 'em up	Impressive stuff reminiscent of old Bitmap Brothers fare	Feb 98	87%
Guardian CD	Shoot 'em up	A cross between Defender and StarWing, this game is very satisfying	Dec 97	90%
Total Carnage CD	Shoot 'em up	Total Rubbish more like	Dec 97	38%
Canon Fodder 2	Shoot 'em up	If you liked CF1 then you will like this too	Dec 97	88%
Canon Fodder	Shoot 'em up	This game is still great fun to play and it's full of laughs	Dec 97	90%
Vendetta 2175	Shoot 'em up	Smooth and professional but unengaging	Aug 97	73%
Mega Typhoon	Shoot 'em up	Although average it is not unplayable	Jul 97	74%
Castle Kingdoms	Shoot 'em up	Too easy for anyone but OK for the younger players	Jun 97	60%
Desert Strike	Shoot 'em up	There's enough action to keep any warmongers happy for weeks	May 97	90%
XPS	Shoot 'em up	A fast smooth scrolling shoot 'em up	Mar 97	75%
Special Forces	Shoot 'em up	A bit tedious and slow	Feb 97	55%
Tommy Gun	Shoot 'em up	Scrolling shoot 'em up which is too easy to last	Feb 97	60%
Chaos Engine 2	Shoot 'em up	Great single or multiplayer game	Jan 97	96%
Wing Commander	Space sim	A good zap that's worth a show	May 97	92%
Starlord	Space sim	You would be much better off getting Frontier instead	Mar 97	35%
Uropa 2	Strategy	It won't win the Nebula but it's still fun	Jan 98	88%
Mobile Warfare	Strategy	Would probably get a good score a year ago	Mar 98	68%
Dune 2	Strategy	The forerunner of Command & Conquer this is absorbing and challenging	Nov 97	92%
Railroad Tycoon	Strategy	It takes time to master but once you do it is an incredible game	Oct 97	90%
Civilization	Strategy	One of the best games ever produced	Oct 97	94%
Theme Park	Strategy	A great game for anyone wishing to build their own Disney World	May 97	88%
Tiny Troops	Strategy	Good game but not a classic	Apr 97	69%
Colonization	Strategy	Not quite the sequel to Civilization but still good	Feb 97	85%
UFO	Strategy	A great strategy game which is still a classic	Feb 97	93%
Blitz Tennis	Tennis	Over simple controls and terrible graphics make this game a no-no	Nov 97	49%
Ultimate Super Skidmarks	Top down racer	If you don't already own it buy it otherwise avoid	Mar 98	70%
Burnout	Top down racer	The gameplay doesn't seem to go anywhere	Mar 97	43%

## KEW = II

SOFTWARE



Est. 1989

THE BEST IN QUALITY PD & SHAREWARE  
SUPPLIED ON BRANDED DISKS ONLY!

### The LEADER -

OTHERS CAN ONLY FOLLOW!

FREE FRIENDLY HELP BY

POST or PHONE ANYTIME!

FREE CLUB MEMBERSHIP

PICK YOUR OWN PROGRAMS!

BY NAME, NUMBER AND SIZE!

IT'S EASY!

DESK makes 1 bootable disk!

DESK makes 1 new bootable disk!

CATALOGUE WITH FULL DESCRIPTIONS & INDEX ONLY £1  
PHONE FOR THE LATEST PROGRAMS! 1-2 disks £1.50  
4 or more ONLY £1.25

PO BOX 672  
South Craydon  
Surrey CR2 9YX  
Tel: 0183 651 1617

FREE  
P&P

## NORWICH PD

Dept (CU) 43 MOTURN RD, NORWICH, NORFOLK,  
NORFOLK. TEL: 01603 804605  
E-MAIL: norwichpd@btinternet.co.uk

### F1 Software & CD ROMs

STAR BOY (Shareware) £3.95 Any Amiga  
EURO MANAGER (Football Manager) £3.95 A500/A1000  
HILT II (Speed KPI) £4.95 Any Amiga  
BOMBERST (Shareware) £2.95 A500/A1000  
EDWARD PRO V4.1 (Word Processor) £3.95 Any Amiga

### Amiga CD ROMS

ARREST 10, 12 or 13 £7.99  
OCTAMUND STUDIO CD £5.00  
SCENE STORM £5.00  
AKRA £2.99  
INSIGHT TECHNOLOGY £2.99

ALL YOU CAN FIND BELOW ARE £5.99 EACH  
INSIGHT DINOSAURS, FIREFORCE, GUARDIAN,  
GOLDEN GAMES, DEMOS ARE FOREVER,  
GLOBAL EXPERIENCE, GULF  
Please add 80p p&p per order.  
Ring Now for free Catalogue

## CLASSIC AMIGA PD Software

Phone for a  
FREE catalogue disk  
0161 723 1638  
SHOP OPEN

12-9pm DAILY

FULL RANGE OF CD ROMS & CD32+  
HARD DRIVES / MEMORY EXPANSIONS  
CD ROM DRIVES

GAMES NOW IN STOCK

11, DEANS GATE  
RADCLIFFE  
Manchester

## 40p FUTURE PD

1 or 2 free disks with every 10  
Highest quality CD disks  
Some day service  
18,000 titles inc. Amiga  
For branded disks add 10p.  
1-9-50p 10-39-45p 40-40p  
130 x 10 DISK PACKS - £3.40

3 FREE CATALOGUES & 3 FREE DISKS  
send 3 x 1st class stamps (P&P) for disks & voucher

10 DISK PACKS & 3 CAT DISKS £3.90

Please state your workbench.  
Big Name Games 1 or 2 • Star Trek Games  
AGA Demos & Games • Arcade Games A100  
Platform Games 1 or 2 • Useful Utilities  
Word Fonts • Etch-a-Sketch Cards  
...Plus another 150 Packs or choose  
your own theme for £4.40

Dept CU, 12 Barnworth Road, Bramley,  
Bathurst, 566 25N

CHEQUES PAYABLE TO ALWOOD

## ADULT CATALOGUE

24 page full  
colour catalogue  
only £2.95

(Redeemable against first order)

Call 01793 490988

Credit Cards Accepted

EPIC - Dept X, PO BOX 637,  
Swindon, Wilts. UK

• Strictly Over 18's only •

## COLOUR MONITOR £10

Our custom made leads will convert your old  
Amiga Monitor to work with your Amiga  
giving a crisp R.G.B. colour picture &  
optional quality amplified stereo sound.

DIY MADE  
464/6128 (CTM644/0) Picture Only £6 £10  
464/6128 (CTM644/0) Inc Stereo Speakers £31 £40  
464/6128 PLUS (CM14) Inc Sound £9 £15  
464/6128 Green (GT-65) Picture Only £6 £10

Dept CU, Hagers Electronics,  
127 High Street, Sheerness, Kent ME12 1UD

Tel/Fax 01795 663336

Money back approval P&P inc

CQ/PO DELIVERY 2 DAYS

Visa

MasterCard

Amex

## COMPUTER SOLUTIONS

AMIGA HARDWARE  
SOFTWARE & ACCESSORIES

NEW OR USED

\*GOOD SELECTION OF GAMES\*

UPGRADES • REPAIRS •

P.D. SOFTWARE

SONY, SEGA, NINTENDO

UNIT 2, MILL LANE MEWS,

ASHBY DE LA ZOUCH, LEICS. LE65 1HP

Tel. (01530) 412983 & 413519

## CHROMA

Power Conversions

Power Accessories

A1200 systems

Zip drives • CD ROMs

SVGA Monitors

Digital Cameras

NEW

MediaStation

Power-based Systems

Web Design • Bureau

01328 862693

chroma.net@aol.com

Unit 10, The Old Mill, The Mill Lane, Lutterworth, Leics. LE15 2JN

## ONLINE PD

PHONE FOR YOUR FREE 3 DISK CATALOGUE

LATEST HARDWARE, PERIPHERALS &

17 more PD titles @ just 80p each disk

Tel: (01704) 834335 or 834583

OR SEND 30p SAE

Fax/BBS: (01704) 834583

MODEM

INCLUDES

FREE

STARTER KIT

75p p&p per PD order

75p p&p per PD order

75p p&p per PD order

75p p&p per PD order

75p p&p per PD order

75p p&p per PD order

75p p&p per PD order

75p p&p per PD order

75p p&p per PD order

75p p&p per PD order

75p p&p per PD order

75p p&p per PD order

75p p&p per PD order

75p p&p per PD order

75p p&p per PD order

75p p&p per PD order

75p p&p per PD order

75p p&p per PD order

75p p&p per PD order

75p p&p per PD order

75p p&p per PD order

75p p&p per PD order

75p p&p per PD order

75p p&p per PD order

75p p&p per PD order

75p p&p per PD order

75p p&p per PD order

75p p&p per PD order

75p p&p per PD order

75p p&p per PD order

75p p&p per PD order

## SHAC SECOND HAND AMIGA CENTRE

TEL: 01983 290003

A1200's FROM £119.19

SOFTWARE SALE

SPEND £15 OR MORE and get one

title FREE worth up to £5

FREE UK MAINLAND DELIVERY

ALSO, HARD DRIVES, RAM EXPANSIONS,

DISK DRIVES SOFTWARE ETC.

ALL AT REASONABLE PRICES

WE ALSO PURCHASE PERIPHERALS POA

SEND SAE FOR LATEST LIST TO:

SHAC, 69 KINGS ROAD, EAST COWES,

ISLE OF WIGHT, PO32 6SE

Tel: 0410 067525

Mail Order Only

Officially The World's Best Selling Amiga Magazine

## CU AMIGA MAGAZINE

If you want to advertise in a  
65mm x 50mm space for only £58.30  
call Marianna Masters now on 0171 972 6727

Don't miss your chance to be seen  
in the world's most popular Amiga title



# PEPPER 60p

(DEPT CU, P.O. BOX 1219, ASTON, SHEFFIELD S26 2XZ  
Tel: 0114 2877226, email: PDP@PPW@aol.com)

PER DISK

WE STOCK OVER 10,000 DISKS ADULTS; UTILS; GAMES;  
EDUCATIONAL; MUSIC AND LOTS MORE TO PICK FROM!!!  
BUT IT TAKES DISKS 1 DISK FREE. FOR ANY OTHER PLEASE ADD 75P P&P  
FREE CATALOGUE. FREE GAME. FREE COPIER OF our choice.  
Freebies sent with all first time orders, or send a S.A.E. to the above address.

## ADULTS

Academy Games 18  
Academy 1 (2)  
Academy 2 (2)  
Academy 3 (2)  
Academy 4 (2)  
Academy 5 (2)  
Academy 6 (2)  
Academy 7 (2)  
Academy 8 (2)  
Academy 9 (2)  
Academy 10 (2)  
Academy 11 (2)  
Academy 12 (2)  
Academy 13 (2)  
Academy 14 (2)  
Academy 15 (2)  
Academy 16 (2)  
Academy 17 (2)  
Academy 18 (2)  
Academy 19 (2)  
Academy 20 (2)  
Academy 21 (2)  
Academy 22 (2)  
Academy 23 (2)  
Academy 24 (2)  
Academy 25 (2)  
Academy 26 (2)  
Academy 27 (2)  
Academy 28 (2)  
Academy 29 (2)  
Academy 30 (2)  
Academy 31 (2)  
Academy 32 (2)  
Academy 33 (2)  
Academy 34 (2)  
Academy 35 (2)  
Academy 36 (2)  
Academy 37 (2)  
Academy 38 (2)  
Academy 39 (2)  
Academy 40 (2)  
Academy 41 (2)  
Academy 42 (2)  
Academy 43 (2)  
Academy 44 (2)  
Academy 45 (2)  
Academy 46 (2)  
Academy 47 (2)  
Academy 48 (2)  
Academy 49 (2)  
Academy 50 (2)  
Academy 51 (2)  
Academy 52 (2)  
Academy 53 (2)  
Academy 54 (2)  
Academy 55 (2)  
Academy 56 (2)  
Academy 57 (2)  
Academy 58 (2)  
Academy 59 (2)  
Academy 60 (2)  
Academy 61 (2)  
Academy 62 (2)  
Academy 63 (2)  
Academy 64 (2)  
Academy 65 (2)  
Academy 66 (2)  
Academy 67 (2)  
Academy 68 (2)  
Academy 69 (2)  
Academy 70 (2)  
Academy 71 (2)  
Academy 72 (2)  
Academy 73 (2)  
Academy 74 (2)  
Academy 75 (2)  
Academy 76 (2)  
Academy 77 (2)  
Academy 78 (2)  
Academy 79 (2)  
Academy 80 (2)  
Academy 81 (2)  
Academy 82 (2)  
Academy 83 (2)  
Academy 84 (2)  
Academy 85 (2)  
Academy 86 (2)  
Academy 87 (2)  
Academy 88 (2)  
Academy 89 (2)  
Academy 90 (2)  
Academy 91 (2)  
Academy 92 (2)  
Academy 93 (2)  
Academy 94 (2)  
Academy 95 (2)  
Academy 96 (2)  
Academy 97 (2)  
Academy 98 (2)  
Academy 99 (2)  
Academy 100 (2)

Academy 101 (2)  
Academy 102 (2)  
Academy 103 (2)  
Academy 104 (2)  
Academy 105 (2)  
Academy 106 (2)  
Academy 107 (2)  
Academy 108 (2)  
Academy 109 (2)  
Academy 110 (2)  
Academy 111 (2)  
Academy 112 (2)  
Academy 113 (2)  
Academy 114 (2)  
Academy 115 (2)  
Academy 116 (2)  
Academy 117 (2)  
Academy 118 (2)  
Academy 119 (2)  
Academy 120 (2)  
Academy 121 (2)  
Academy 122 (2)  
Academy 123 (2)  
Academy 124 (2)  
Academy 125 (2)  
Academy 126 (2)  
Academy 127 (2)  
Academy 128 (2)  
Academy 129 (2)  
Academy 130 (2)  
Academy 131 (2)  
Academy 132 (2)  
Academy 133 (2)  
Academy 134 (2)  
Academy 135 (2)  
Academy 136 (2)  
Academy 137 (2)  
Academy 138 (2)  
Academy 139 (2)  
Academy 140 (2)  
Academy 141 (2)  
Academy 142 (2)  
Academy 143 (2)  
Academy 144 (2)  
Academy 145 (2)  
Academy 146 (2)  
Academy 147 (2)  
Academy 148 (2)  
Academy 149 (2)  
Academy 150 (2)  
Academy 151 (2)  
Academy 152 (2)  
Academy 153 (2)  
Academy 154 (2)  
Academy 155 (2)  
Academy 156 (2)  
Academy 157 (2)  
Academy 158 (2)  
Academy 159 (2)  
Academy 160 (2)  
Academy 161 (2)  
Academy 162 (2)  
Academy 163 (2)  
Academy 164 (2)  
Academy 165 (2)  
Academy 166 (2)  
Academy 167 (2)  
Academy 168 (2)  
Academy 169 (2)  
Academy 170 (2)  
Academy 171 (2)  
Academy 172 (2)  
Academy 173 (2)  
Academy 174 (2)  
Academy 175 (2)  
Academy 176 (2)  
Academy 177 (2)  
Academy 178 (2)  
Academy 179 (2)  
Academy 180 (2)  
Academy 181 (2)  
Academy 182 (2)  
Academy 183 (2)  
Academy 184 (2)  
Academy 185 (2)  
Academy 186 (2)  
Academy 187 (2)  
Academy 188 (2)  
Academy 189 (2)  
Academy 190 (2)  
Academy 191 (2)  
Academy 192 (2)  
Academy 193 (2)  
Academy 194 (2)  
Academy 195 (2)  
Academy 196 (2)  
Academy 197 (2)  
Academy 198 (2)  
Academy 199 (2)  
Academy 200 (2)

Academy 201 (2)  
Academy 202 (2)  
Academy 203 (2)  
Academy 204 (2)  
Academy 205 (2)  
Academy 206 (2)  
Academy 207 (2)  
Academy 208 (2)  
Academy 209 (2)  
Academy 210 (2)  
Academy 211 (2)  
Academy 212 (2)  
Academy 213 (2)  
Academy 214 (2)  
Academy 215 (2)  
Academy 216 (2)  
Academy 217 (2)  
Academy 218 (2)  
Academy 219 (2)  
Academy 220 (2)  
Academy 221 (2)  
Academy 222 (2)  
Academy 223 (2)  
Academy 224 (2)  
Academy 225 (2)  
Academy 226 (2)  
Academy 227 (2)  
Academy 228 (2)  
Academy 229 (2)  
Academy 230 (2)  
Academy 231 (2)  
Academy 232 (2)  
Academy 233 (2)  
Academy 234 (2)  
Academy 235 (2)  
Academy 236 (2)  
Academy 237 (2)  
Academy 238 (2)  
Academy 239 (2)  
Academy 240 (2)  
Academy 241 (2)  
Academy 242 (2)  
Academy 243 (2)  
Academy 244 (2)  
Academy 245 (2)  
Academy 246 (2)  
Academy 247 (2)  
Academy 248 (2)  
Academy 249 (2)  
Academy 250 (2)  
Academy 251 (2)  
Academy 252 (2)  
Academy 253 (2)  
Academy 254 (2)  
Academy 255 (2)  
Academy 256 (2)  
Academy 257 (2)  
Academy 258 (2)  
Academy 259 (2)  
Academy 260 (2)  
Academy 261 (2)  
Academy 262 (2)  
Academy 263 (2)  
Academy 264 (2)  
Academy 265 (2)  
Academy 266 (2)  
Academy 267 (2)  
Academy 268 (2)  
Academy 269 (2)  
Academy 270 (2)  
Academy 271 (2)  
Academy 272 (2)  
Academy 273 (2)  
Academy 274 (2)  
Academy 275 (2)  
Academy 276 (2)  
Academy 277 (2)  
Academy 278 (2)  
Academy 279 (2)  
Academy 280 (2)  
Academy 281 (2)  
Academy 282 (2)  
Academy 283 (2)  
Academy 284 (2)  
Academy 285 (2)  
Academy 286 (2)  
Academy 287 (2)  
Academy 288 (2)  
Academy 289 (2)  
Academy 290 (2)  
Academy 291 (2)  
Academy 292 (2)  
Academy 293 (2)  
Academy 294 (2)  
Academy 295 (2)  
Academy 296 (2)  
Academy 297 (2)  
Academy 298 (2)  
Academy 299 (2)  
Academy 300 (2)

AGA = 1200 only. WB2 = Not AGO. All titles are on ONE disk unless otherwise stated in brackets. This is only a small selection of titles available from us - LOTS, LOTS, LOTS MORE AVAILABLE!  
PLEASE MAKE CHEQUES/P.O.s PAYABLE TO R. LLOYD FOR ORDERS OF TWO POUNDS OR BELOW. WE ACCEPT STAMPS.

## HOME-ELITE

### Home Computing

DEPT CU, P.O. BOX 835, WOOTTON BASSETT,  
WILTSHIRE SN4 8RX. Tel: 01793 853802

Public Domain/Shareware/CD-ROM/Commercial Software/Hardware

## FREE CATALOGUE DISK

PD / Shareware from only 50p/disk

## SPRING SALE

### A WHOLE WORLD OF AMIGA SOFTWARE

CDROM		AGA 1.2		AGA 1.3		AGA 1.4		AGA 1.5		AGA 1.6		AGA 1.7		AGA 1.8		AGA 1.9		AGA 2.0		AGA 2.1		AGA 2.2		AGA 2.3		AGA 2.4		AGA 2.5		AGA 2.6		AGA 2.7		AGA 2.8		AGA 2.9		AGA 3.0		AGA 3.1		AGA 3.2		AGA 3.3		AGA 3.4		AGA 3.5		AGA 3.6		AGA 3.7		AGA 3.8		AGA 3.9		AGA 4.0		AGA 4.1		AGA 4.2		AGA 4.3		AGA 4.4		AGA 4.5		AGA 4.6		AGA 4.7		AGA 4.8		AGA 4.9		AGA 5.0		AGA 5.1		AGA 5.2		AGA 5.3		AGA 5.4		AGA 5.5		AGA 5.6		AGA 5.7		AGA 5.8		AGA 5.9		AGA 6.0		AGA 6.1		AGA 6.2		AGA 6.3		AGA 6.4		AGA 6.5		AGA 6.6		AGA 6.7		AGA 6.8		AGA 6.9		AGA 7.0		AGA 7.1		AGA 7.2		AGA 7.3		AGA 7.4		AGA 7.5		AGA 7.6		AGA 7.7		AGA 7.8		AGA 7.9		AGA 8.0		AGA 8.1		AGA 8.2		AGA 8.3		AGA 8.4		AGA 8.5		AGA 8.6		AGA 8.7		AGA 8.8		AGA 8.9		AGA 9.0		AGA 9.1		AGA 9.2		AGA 9.3		AGA 9.4		AGA 9.5		AGA 9.6		AGA 9.7		AGA 9.8		AGA 9.9		AGA 10.0		AGA 10.1		AGA 10.2		AGA 10.3		AGA 10.4		AGA 10.5		AGA 10.6		AGA 10.7		AGA 10.8		AGA 10.9		AGA 11.0		AGA 11.1		AGA 11.2		AGA 11.3		AGA 11.4		AGA 11.5		AGA 11.6		AGA 11.7		AGA 11.8		AGA 11.9		AGA 12.0		AGA 12.1		AGA 12.2		AGA 12.3		AGA 12.4		AGA 12.5		AGA 12.6		AGA 12.7		AGA 12.8		AGA 12.9		AGA 13.0		AGA 13.1		AGA 13.2		AGA 13.3		AGA 13.4		AGA 13.5		AGA 13.6		AGA 13.7		AGA 13.8		AGA 13.9		AGA 14.0		AGA 14.1		AGA 14.2		AGA 14.3		AGA 14.4		AGA 14.5		AGA 14.6		AGA 14.7		AGA 14.8		AGA 14.9		AGA 15.0		AGA 15.1		AGA 15.2		AGA 15.3		AGA 15.4		AGA 15.5		AGA 15.6		AGA 15.7		AGA 15.8		AGA 15.9		AGA 16.0		AGA 16.1		AGA 16.2		AGA 16.3		AGA 16.4		AGA 16.5		AGA 16.6		AGA 16.7		AGA 16.8		AGA 16.9		AGA 17.0		AGA 17.1		AGA 17.2		AGA 17.3		AGA 17.4		AGA 17.5		AGA 17.6		AGA 17.7		AGA 17.8		AGA 17.9		AGA 18.0		AGA 18.1		AGA 18.2		AGA 18.3		AGA 18.4		AGA 18.5		AGA 18.6		AGA 18.7		AGA 18.8		AGA 18.9		AGA 19.0		AGA 19.1		AGA 19.2		AGA 19.3		AGA 19.4		AGA 19.5		AGA 19.6		AGA 19.7		AGA 19.8		AGA 19.9		AGA 20.0		AGA 20.1		AGA 20.2		AGA 20.3		AGA 20.4		AGA 20.5		AGA 20.6		AGA 20.7		AGA 20.8		AGA 20.9		AGA 21.0		AGA 21.1		AGA 21.2		AGA 21.3		AGA 21.4		AGA 21.5		AGA 21.6		AGA 21.7		AGA 21.8		AGA 21.9		AGA 22.0		AGA 22.1		AGA 22.2		AGA 22.3		AGA 22.4		AGA 22.5		AGA 22.6		AGA 22.7		AGA 22.8		AGA 22.9		AGA 23.0		AGA 23.1		AGA 23.2		AGA 23.3		AGA 23.4		AGA 23.5		AGA 23.6		AGA 23.7		AGA 23.8		AGA 23.9		AGA 24.0		AGA 24.1		AGA 24.2		AGA 24.3		AGA 24.4		AGA 24.5		AGA 24.6		AGA 24.7		AGA 24.8		AGA 24.9		AGA 25.0		AGA 25.1		AGA 25.2		AGA 25.3		AGA 25.4		AGA 25.5		AGA 25.6		AGA 25.7		AGA 25.8		AGA 25.9		AGA 26.0		AGA 26.1		AGA 26.2		AGA 26.3		AGA 26.4		AGA 26.5		AGA 26.6		AGA 26.7		AGA 26.8		AGA 26.9		AGA 27.0		AGA 27.1		AGA 27.2		AGA 27.3		AGA 27.4		AGA 27.5		AGA 27.6		AGA 27.7		AGA 27.8		AGA 27.9		AGA 28.0		AGA 28.1		AGA 28.2		AGA 28.3		AGA 28.4		AGA 28.5		AGA 28.6		AGA 28.7		AGA 28.8		AGA 28.9		AGA 29.0		AGA 29.1		AGA 29.2		AGA 29.3		AGA 29.4		AGA 29.5		AGA 29.6		AGA 29.7		AGA 29.8		AGA 29.9		AGA 30.0		AGA 30.1		AGA 30.2		AGA 30.3		AGA 30.4		AGA 30.5		AGA 30.6		AGA 30.7		AGA 30.8		AGA 30.9		AGA 31.0		AGA 31.1		AGA 31.2		AGA 31.3		AGA 31.4		AGA 31.5		AGA 31.6		AGA 31.7		AGA 31.8		AGA 31.9		AGA 32.0		AGA 32.1		AGA 32.2		AGA 32.3		AGA 32.4		AGA 32.5		AGA 32.6		AGA 32.7		AGA 32.8		AGA 32.9		AGA 33.0		AGA 33.1		AGA 33.2		AGA 33.3		AGA 33.4		AGA 33.5		AGA 33.6		AGA 33.7		AGA 33.8		AGA 33.9		AGA 34.0		AGA 34.1		AGA 34.2		AGA 34.3		AGA 34.4		AGA 34.5		AGA 34.6		AGA 34.7		AGA 34.8		AGA 34.9		AGA 35.0		AGA 35.1		AGA 35.2		AGA 35.3		AGA 35.4		AGA 35.5		AGA 35.6		AGA 35.7		AGA 35.8		AGA 35.9		AGA 36.0		AGA 36.1		AGA 36.2		AGA 36.3		AGA 36.4		AGA 36.5		AGA 36.6		AGA 36.7		AGA 36.8		AGA 36.9		AGA 37.0		AGA 37.1		AGA 37.2		AGA 37.3		AGA 37.4		AGA 37.5		AGA 37.6		AGA 37.7		AGA 37.8		AGA 37.9		AGA 38.0		AGA 38.1		AGA 38.2		AGA 38.3		AGA 38.4		AGA 38.5		AGA 38.6		AGA 38.7		AGA 38.8		AGA 38.9		AGA 39.0		AGA 39.1		AGA 39.2		AGA 39.3		AGA 39.4		AGA 39.5		AGA 39.6		AGA 39.7		AGA 39.8		AGA 39.9		AGA 40.0		AGA 40.1		AGA 40.2		AGA 40.3		AGA 40.4		AGA 40.5		AGA 40.6		AGA 40.7		AGA 40.8		AGA 40.9		AGA 41.0		AGA 41.1		AGA 41.2		AGA 41.3		AGA 41.4		AGA 41.5		AGA 41.6		AGA 41.7		AGA 41.8		AGA 41.9		AGA 42.0		AGA 42.1		AGA 42.2		AGA 42.3		AGA 42.4		AGA 42.5		AGA 42.6		AGA 42.7		AGA 42.8		AGA 42.9		AGA 43.0		AGA 43.1		AGA 43.2		AGA 43.3		AGA 43.4		AGA 43.5		AGA 43.6		AGA 43.7		AGA 43.8		AGA 43.9		AGA 44.0		AGA 44.1		AGA 44.2		AGA 44.3		AGA 44.4		AGA 44.5		AGA 44.6		AGA 44.7		AGA 44.8		AGA 44.9		AGA 45.0		AGA 45.1		AGA 45.2		AGA 45.3		AGA 45.4		AGA 45.5		AGA 45.6		AGA 45.7		AGA 45.8		AGA 45.9		AGA 46.0		AGA 46.1		AGA 46.2		AGA 46.3		AGA 46.4		AGA 46.5		AGA 46.6		AGA 46.7		AGA 46.8		AGA 46.9		AGA 47.0		AGA 47.1		AGA 47.2		AGA 47.3		AGA 47.4		AGA 47.5		AGA 47.6		AGA 47.7		AGA 47.8		AGA 47.9		AGA 48.0		AGA 48.1		AGA 48.2		AGA 48.3		AGA 48.4		AGA 48.5		AGA 48.6		AGA 48.7		AGA 48.8		AGA 48.9		AGA 49.0		AGA 49.1		AGA 49.2		AGA 49.3		AGA 49.4		AGA 49.5		AGA 49.6		AGA 49.7		AGA 49.8		AGA 49.9		AGA 50.0		AGA 50.1		AGA 50.2		AGA 50.3		AGA 50.4		AGA 50.5		AGA 50.6		AGA 50.7		AGA 50.8		AGA 50.9		AGA 51.0		AGA 51.1		AGA 51.2		AGA 51.3		AGA 51.4		AGA 51.5		AGA 51.6		AGA 51.7		AGA 51.8		AGA 51.9		AGA 52.0		AGA 52.1		AGA 52.2		AGA 52.3		AGA 52.4		AGA 52.5		AGA 52.6		AGA 52.7		AGA 52.8		AGA 52.9		AGA 53.0		AGA 53.1		AGA 53.2		AGA 53.3		AGA 53.4		AGA 53.5		AGA 53.6		AGA 53.7		AGA 53.8		AGA 53.9		AGA 54.0		AGA 54.1		AGA 54.2		AGA 54.3		AGA 54.4		AGA 54.5		AGA 54.6		AGA 54.7		AGA 54.8		AGA 54.9		AGA 55.0		AGA 55.1		AGA 55.2		AGA 55.3		AGA 55.4		AGA 55.5		AGA 55.6		AGA 55.7		AGA 55.8		AGA 55.9		AGA 56.0		AGA 56.1		AGA 56.2		AGA 56.3		AGA 56.4		AGA 56.5		AGA 56.6		AGA 56.7		AGA 56.8		AGA 56.9		AGA 57.0		AGA 57.1		AGA 57.2		AGA 57.3		AGA 57.4		AGA 57.5		AGA 57.6		AGA 57.7		AGA 57.8		AGA 57.9		AGA 58.0		AGA 58.1		AGA 58.2		AGA 58.3		AGA 58.4		AGA 58.5		AGA 58.6		AGA 58.7		AGA 58.8		AGA 58.9		AGA 59.0		AGA 59.1		AGA 59.2		AGA 59.3		AGA 59.4		AGA 59.5		AGA 59.6		AGA 59.7		AGA 59.8		AGA 59.9		AGA 60.0		AGA 60.1		AGA 60.2		AGA 60.3		AGA 60.4		AGA 60.5		AGA 60.6		AGA 60.7		AGA 60.8		AGA 60.9		AGA 61.0		AGA 61.1		AGA 61.2		AGA 61.3		AGA 61.4		AGA 61.5		AGA 61.6		AGA 61.7		AGA 61.8		AGA 61.9		AGA 62.0		AGA 62.1		AGA 62.2		AGA 62.3		AGA 62.4		AGA 62.5		AGA 62.6		AGA 62.7		AGA 62.8		AGA 62.9		AGA 63.0		AGA 63.1		AGA 63.2		AGA 63.3		AGA 63.4		AGA 63.5		AGA 63.6		AGA 63.7		AGA 63.8		AGA 63.9		AGA 64.0		AGA 64.1		AGA 64.2		AGA 64.3		AGA 64.4		AGA 64.5		AGA 64.6		AGA 64.7		AGA 64.8		AGA 64.9		AGA 65.0		AGA 65.1		AGA 65.2		AGA 65.3		AGA 65.4		AGA 65.5		AGA 65.6		AGA 65.7		AGA 65.8		AGA 65.9		AGA 66.0		AGA 66.1		AGA 66.2		AGA 66.3		AGA 66.4		AGA 66.5		AGA 66.6		AGA 66.7		AGA 66.8		AGA 66.9		AGA 67.0		AGA 67.1		AGA 67.2		AGA 67.3		AGA 67.4		AGA 67.5		AGA 67.6		AGA 67.7		AGA 67.8		AGA 67.9		AGA 68.0		AGA 68.1		AGA 68.2		AGA 68.3		AGA 68.4		AGA 68.5		AGA 68.6		AGA 68.7		AGA 68.8		AGA 68.9		AGA 69.0		AGA 69.1		AGA 69.2		AGA 69.3		AGA 69.4		AGA 69.5		AGA 69.6		AGA 69.7		AGA 69.8		AGA 69.9		AGA 70.0		AGA 70.1		AGA 70.2		AGA 70.3		AGA 70.4		AGA 70.5		AGA 70.6		AGA 70.7		AGA 70.8		AGA 70.9		AGA 71.0		AGA 71.1		AGA 71.2		AGA 71.3		AGA 71.4		AGA 71.5		AGA 71.6		AGA 71.7		AGA 71.8		AGA 71.9		AGA 72.0		AGA 72.1		AGA 72.2		AGA 72.3		AGA 72.4		AGA 72.5		AGA 72.6		AGA 72.7		AGA 72.8		AGA 72.9		AGA 73.0		AGA 73.1		AGA 73.2		AGA 73.3		AGA 73.4		AGA 73.5		AGA 73.6		AGA 73.7		AGA 73.8		AGA 73.9		AGA 74.0		AGA 74.1		AGA 74.2		AGA 74.3		AGA 74.4		AGA 74.5		AGA 74.6		AGA 74.7		AGA 74.8		AGA 74.9		AGA 75.0	
Akira	AGA 1.2	AGA 1.3	AGA 1.4	AGA 1.5	AGA 1.6	AGA 1.7	AGA 1.8	AGA 1.9	AGA 2.0	AGA 2.1	AGA 2.2	AGA 2.3	AGA 2.4	AGA 2.5	AGA 2.6	AGA 2.7	AGA 2.8	AGA 2.9	AGA 3.0	AGA 3.1	AGA 3.2	AGA 3.3	AGA 3.4	AGA 3.5	AGA 3.6	AGA 3.7	AGA 3.8	AGA 3.9	AGA 4.0	AGA 4.1	AGA 4.2	AGA 4.3	AGA 4.4	AGA 4.5	AGA 4.6	AGA 4.7	AGA 4.8	AGA 4.9	AGA 5.0	AGA 5.1	AGA 5.2	AGA 5.3	AGA 5.4	AGA 5.5	AGA 5.6	AGA 5.7	AGA 5.8	AGA 5.9	AGA 6.0	AGA 6.1	AGA 6.2	AGA 6.3	AGA 6.4	AGA 6.5	AGA 6.6	AGA 6.7	AGA 6.8	AGA 6.9	AGA 7.0	AGA 7.1	AGA 7.2	AGA 7.3	AGA 7.4	AGA 7.5	AGA 7.6	AGA 7.7	AGA 7.8	AGA 7.9	AGA 8.0	AGA 8.1	AGA 8.2	AGA 8.3	AGA 8.4	AGA 8.5	AGA 8.6	AGA 8.7	AGA 8.8	AGA 8.9	AGA 9.0	AGA 9.1	AGA 9.2	AGA 9.3	AGA 9.4	AGA 9.5	AGA 9.6	AGA 9.7	AGA 9.8	AGA 9.9	AGA 10.0	AGA 10.1	AGA 10.2	AGA 10.3	AGA 10.4	AGA 10.5	AGA 10.6	AGA 10.7	AGA 10.8	AGA 10.9	AGA 11.0	AGA 11.1	AGA 11.2	AGA 11.3	AGA 11.4	AGA 11.5	AGA 11.6	AGA 11.7	AGA 11.8	AGA 11.9	AGA 12.0	AGA 12.1	AGA 12.2	AGA 12.3	AGA 12.4	AGA 12.5	AGA 12.6	AGA 12.7	AGA 12.8	AGA 12.9	AGA 13.0	AGA																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															



# Next Month

## Big News!

Next issue will come complete with some rather large news from the horse's mouth (that's Amiga Inc to you and me). At the time of going to press we're still not sure what it is, so we can't promise you it's finally going to be time to crack open that bottle of lemonade and liberate the suspiciously soft marshmallow biscuits. However, we are assured it's going to be BIG news this time, so, lining ourselves up for another big anticlimax we've bated our breath (whatever the hell that means) and sat up in anticipation like a puppy waiting for a bone from his master. All will be revealed next month!

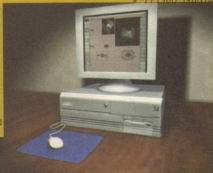
**Plus:** Genetic Species Threatening to come from behind and usurp the mighty Quake, Vulcan's 3D blaster will be getting the full review treatment.

### Tornado 3D

Another late entrant into the stalls, Tornado 3D is hoping to steal Lightwave's crown. A tall order that could be more realistic than it sounds!

**CU Amiga - July issue on sale 11th June**

**AMIGA**  
MAGAZINE



ISSN 1360-5760



## Don't Miss An Issue!

Fill in the form below and hand it to your newsagent, taking care to specify whether you require the CD or floppy disk edition.



"Don't you just hate it when you can't get your hands on the latest issue of CU Amiga? Make sure you don't miss a single issue of the world's best Amiga magazine by placing a regular order for CU Amiga with your local newsagent".

Dear News Agent, please order and reserve me the next issue of CU Amiga Magazine.

Name: \_\_\_\_\_

I require the following edition: (please tick)

Postal address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

☐ Floppy Disk Edition ☐ CD ROM Edition

Telephone: \_\_\_\_\_

**AMIGA**  
MAGAZINE

# Q&A

Don't worry how complicated your technical problem is, challenge our panel of experts and they'll try to fathom it out. Please don't forget to provide us with as much detail on your systems and problems as possible, to help us solve things for you.

## Logos

### Mysteries and meanings ...



Solutions to those everyday troubles with your Workbench.



If you need help getting more from your Amiga, just ask!



All your Internet and general comms problems swiftly solved.



Trouble making your Amiga sing? We've got the answers here.



Technical matters beyond the scope of plug-ins and plug-ons.



Answers to queries on particular pieces of software.



General queries which just don't seem to fit in anywhere else.



Specific help with CD-ROM solutions and driver problems.



Problems with art and design? Help and advice is at hand.



Printers, monitors, we'll solve your peripheral blues for you.

## Breaking the 4Gb barrier



I recently bought a Quantum 4.3Gb replacement hard drive for my Amiga. I rushed home with it, plugged it in, ran HDToolBox, chose the 'Read configuration' button, and it said that the size of the drive was 14Mb.

With some tweaking of the values, I came to the conclusion that HDToolBox 'wraps around' at the 2Gb mark before entering negative values. So I kept those values (for want of any other solution) and so far so good, except I have a 2Gb hard drive rather than 4.3Gb.

So how do I format my new baby to its full 4.3Gb capacity?

Shay Riggs, Cambridge

This problem is caused by the fact that AmigaDOS locates the blocks on a disk by using a 32bit address. Consequently, the maximum number of blocks is  $2^{32}$ , which works out as 4Gb. Some utilities even treat this 32bit number as signed, that is plus or minus 2Gb.

The upshot of all this is that AmigaDOS doesn't support disk sizes greater than 4Gb and in fact it is safest to keep disk partitions smaller than 2Gb. However, all is not lost: there are several software patches available which work around this limitation.

Try, for example, FFSTD64 (which should be on this month's cover CD) or giga.device. Also, Amiga International have a beta version of a fixed file system without the 4Gb limit which can be downloaded from their web-site (it would be safe to bet that this will be a feature of OS3.5 when it appears).

As these solution are patches (or hacks), it must be remembered that they do not guarantee 100% stability.

## Sourcin' chips



I purchased a cheap, second-hand GVP 1230 accelerator for the Amiga 1200. The accelerator has 2 x 64 pin SIMM sockets. What sort of memory does this accelerator take? Is it possible to buy 64 pin SIMMs?

A. Anonymous, Bristol

Unfortunately, you have to use GVP's own brand SIMMs in their accelerators - the 64 pin variety coming in 1, 4 or 16Mb sizes. As to where to buy them, I suspect your best bet would be to try to get them second-hand.

GVP are still in existence and you could buy direct from them in the States - but this would be expensive. You can check out GVP's web-site at <http://www.gvpm.com/>.

## Ghost in the machine?



I own an A1200 with a Blizzard 1230 IV accelerator which has 8Mb of fast ram on board. I also

have a 1.2Gb hard disk and an extra external floppy drive. In order to play a game, Desert Strike, I had to disable the accelerator so it would run properly. On reset I held down the number "2" to disable the accelerator and unfortunately (though this is not the problem) the hard disk for some reason disappears from the system.

Now on to my problem (if you could call it that). I held down the reset keys for 6 seconds to re-enable the accelerator (and the hard disk) and something weird happened. Workbench appeared to boot as usual but did not. Instead the screen turned black and a blue banner appeared. In the centre of this banner the MagicWB logo appeared (the triangle like thing with the picture of a mouse pointer in the centre of it).

Then a deep synth-like sound was played which gradually got quieter and quieter and the 'Dolby SurroundSound' logo appeared in the bottom left hand corner of the banner. The screen faded and my Workbench loaded as normal with no errors. I want to know what it



▲ Haunted Workbench or Trojan Horse? You've heard the facts, now decide for yourself.

was and how I can make it happen again. I believe it was some kind of MagicWB program but as I cannot find the program which does this in any of my hard disk directories I am slightly worried. Though, perhaps it was a virus or some kind of Artificial Intelligence (maybe my Amiga has become self aware, or maybe not!) I do hope so.

Anyway I also checked the start-up sequence and user-startup but there was no trace of this program. I am being perfectly sincere and this DID happen. Please believe me.

Mintlaw, via e-mail

Calm down - I believe you. The same thing has happened to me, and the first time it happened I was rather surprised, too.

Unfortunately, your Amiga has not become spontaneously self-aware. It is in fact caused by the MagicWB pen daemon which is installed into your start-up sequence by the MagicWB package. I don't know what triggers it to display the logo and play the sound; since it happens only every so often, it's completely random.

The sound sample that is actually played can be found in the drawer on your system disk and is called *mti.data*. You can play this with, say, the *Play16* command to convince yourself that your Amiga is not alive. My advice to you is to get rid of MagicWB and install NewIcons instead. It is far less spooky and much nicer to look at it. By the way, when submitting a question via email, please sign your name on it: it is difficult to decipher some of the more cryptic user IDs.

## The end of the line



I have an A1200 tower with a Squirrel SCSI device connected to a CD-ROM drive, 2 hard drives and a tape streamer.

- Does the ZipPlus drive have built in termination?
- Does termination of a SCSI chain have to be the last physical device (ie; the one furthest from the controller), or the device with the highest ID?
- My Squirrel transfers data at about 1.2 - 1.4Mbit per second, but takes up 100% CPU time (AIBB). Is this because it's not DMA (direct memory access)? If I fit a SCSI interface to my Apollo, will it hog less CPU time?

Mark Sudlow, Cheshire

## Tech Tip: Joystick port sharer



The following circuit was submitted by Craig. CU Amiga Magazine has not tested this circuit, and so cannot be held responsible for any damage caused by building and using it.

### The Sticky Box

When was the last time you wanted to play a two-joystick game before discovering you had to fiddle around unplugging the mouse? It was during one of these moments that I came up with the idea for this design. Functionally speaking, it works more or less like the excellent

Roboshift by Steve Collins, although his design does have a few improvements over this one. Most notably, it always defaults to the mouse port and the whole thing is built with ultra-compact SMT components. The Sticky Box is fully automatic so you simply just have to press fire switch over to joystick, or click the mouse button to switch to mouse (just like the Roboshift).

The main advantage that the Sticky Box has over Roboshift is that it's seven quid cheaper. While Roboshift is only available commercially for about £17, this design can be bought for less

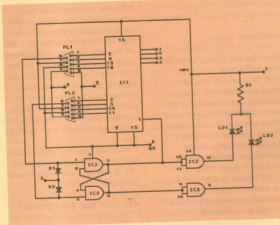
than a tenner and is perfectly suitable as a first time construction project. Even if you have never wielded a soldering iron before, this project is simple enough for almost anyone.

### Construction

Building the Sticky Box is a simple matter of 'stuffing' the PCB/Vero board and wiring the flying 9-pin socket. Two points are worth noting: pin 1 of IC1 and IC2 (marked with a notch) face towards the D connectors. Also, take care when wiring the flying 9-pin D socket: the lead spacing is quite tight and you will need a small (typically 17 watt) soldering iron to do the job. A magnifying glass is helpful to read the pin numbers, too.

### What you will need

- IC1 - 74LS157
- IC2 - 74LS00
- D1, D2 - 1N4148 Switching diodes
- LD1 - 5mm LED (10mA) Green
- LD2 - 5mm LED (10mA) Red
- R1 - 1K5 0.6W Metal film 2%
- PL1, PL2 - 9-pin D socket
- PL3 - 9-pin D socket (in-line)
- Cable - 1/2M either 9x7-core with screen or 10-way ribbon
- Veropins - 9 off
- IC Sockets - 14-pin DIL x 1, 16-pin DIL x 1
- Case To suit



- Yes. The Zip plus is a rather clever version of the normal Zip drive. It is clever in that it can be connected (although not simultaneously) to both PCs via a parallel interface and to Amigas and Macs via a SCSI interface. It automatically detects by which interface it is connected and acts accordingly. It also features automatic termination.
- SCSI chains must be terminated at both ends, that is, the first and last devices must be terminated. The SCSI interface itself is considered to be the first device in the chain and will have termination built in. The last device must be terminated in some fashion - if it is an external device it will usually have some form of switchable or automatic termination built-in.
- Probably not. The Squirrel is a slow SCSI device mainly because of the poor bandwidth of the PCMCIA slot. And the fact that it is non-DMA means that it steals all the CPU's time during SCSI access

- resulting in the computer grinding to a halt.

The Apollo SCSI interface is unfortunately no solution. Unlike the phase5 add-on, it is not a true DMA device and performs poorly. You would probably be better off staying with your Squirrel for just now.

### Old games



Is it still possible to get hold of a copy of The Secret of Monkey Island? Two - one of the greatest games of all time that I unfortunately don't have. Great mag by the way and cheers.

Andy T, e-mail

We get many queries like this. The answer to all of them is simple and the same: try contacting a software distributor like Epic Marketing (Tel. 01793 490988) or Alive Mediasoft (Tel. 01623 467579).

### A brighter Workbench



This is driving me mad! No matter what I try to do, including installing NewIcons, I cannot seem to bring colour to my workbench. Even background pictures come out in those 'restful' four-colour combinations.

True, I can use Prefs to change the four colours, but what happened to technicolour glory? I'm either missing something, or I am doing something terribly wrong. Help!

Doug Harvey, Northampton

I always like to do my bit to save the sanity of our readers. The solution to your problem also lies in the Prefs drawer and is called ScreenMode. Double-click on this and you will be presented with a requester. In this requester will be a gadget called colours which can be used to alter the number of colours on the Workbench screen.



▲ The agency of choice. Option one, the Picasso IV

Click Save to make the changes permanent. If you have an unexpanded Amiga, it is probably best to use only 8 or 16 colours; any more and the screen will consume too much memory and will slow the system down. With a fast processor 64 colours in AGA is quite useable.

## A1200 and gfx cards?

I have seen many adverts in your magazine for Zorro slot graphics cards, and I am considering buying one.

However, I have several questions and problems which I hope you can answer. Currently, I have an A1200 with a GVP 68030 accelerator (+FPU), a CD-ROM drive and a Zip drive (both SCSI connected via a Squirrel) and an old Commodore 10845 monitor. The CD drive and Zip are installed in a HIQ mini tower, but I have no Zorro slots.

1. Do graphics cards have to be connected via Zorro slots, or can you get cards which can be connected to the parallel or serial port, or even SCSI?
2. Can I buy a Zorro slot to put into my tower case to use a graphics card? If so, where can I get hold of one, and how much will it cost?
3. Which graphics card is better – CyberVision 64-3D or Picasso IV?
4. How much do they cost?
5. Will a graphics card fix the flickering experienced with my current monitor in interlaced screen modes? I have seen things called "flicker-fixers", will I have to buy one of those as well as a graphics card?
6. Will the graphics card improve the speed of all applications requiring complex graphics/screen modes ie; Imagine, PPaint, Photogenics, Workbench and games such as TFX and Doom, or do I need special versions of the above titles?
7. Finally, one question, not related to graphics cards: How can I get Workbench to run certain file types (such as MIDI, IFF, JPEG etc.) using particular programmes (such as

GMPay, Visage etc.) when I double click on the files' icons?

I have subscribed to your magazine for several years now, and I have to say I think it is the Best Amiga magazine. Thanks for putting excellent programmes on your cover CDs: TFX, PPaint, Doom etc. – and keep up the good work too!!

Lewis Boyd, Belfast

Thanks for the praise, Lewis. Now, to the questions!  
1 & 2. All currently available Amiga graphics cards require a Zorro slot. This means you will need a 'big box' Amiga of some sort to use one, or, failing that, an A1200 in a tower case with a third-party Zorro busboard installed, say the Micronik Z2 which has 5 Zorro slots.

This system is still quite expensive, costing £149.95 from Blittersoft, (especially as you will have the cost of the gfx card on top of that). Also note that it requires various connectors to be soldered and attached to the 1200 motherboard for full compatibility with Zorro graphics cards. Also, Eyetech (01642 713185) sell an adaptor for £99.95 which allows a single Zorro card to be plugged into an A1200.

However, things are about to change: phase 5 have a graphics card in development which plugs directly into their PPC accelerators (thus not requiring Zorro); and Ateo Concepts are developing an alternative, non-standard and cheaper bus interface system for the A1200 complete with a range of their own cards including a graphics card, Pixel64.

Both these systems should be ready for release soon.  
3 & 4. It is a matter of personal choice which card you think is better. Personally, I prefer the Picasso IV. The Picasso IV costs £249.95 and is available from Blittersoft (01908 261466). It is more expensive, but is based

around a more modern chipset, there is a useful range of plug-in modules, such as a 16bit sound card, a video encoder and TV module, and it has a built in flicker fixer. The CyberVision64/3D costs £144 from White Knight (01920 822321). It does require an external scan doubler but, on the plus side, features a 3D graphics engine – which is sadly under-used on the Amiga.

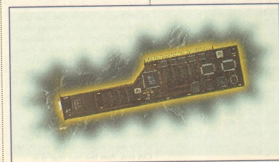
5. The Picasso IV has a built-in flicker-fixer and so can display all Amiga screenmodes and its own modes on an SVGA monitor. The Cybervision requires an external Scandoubler module to be able to display native Amiga screenmodes.  
6. Yes. You will notice a big increase in speed especially for software which requires deep screen modes. Not only can gfx cards manipulate images faster than AGA but, by taking the load off the AGA chipset, they also leave more system cycles for the CPU. Not all software is compatible with gfx card screenmodes – for example, a large number of games are not – but most of the software you mentioned above will benefit greatly from a gfx card display.

7. You might try the utility called IDER which is used on our cover CDs. It can be found in the drawer CDSupport/Essentials.

## VR Amiga (reprise)?

I have a boxed Mattel Powerglow here which I've only used a couple of times since purchase in 1991. It is complete with all cables, glove, instruction book and sensors for TV. If Karl Gronenberg or indeed anyone else for that matter is interested they can email me at this address: [tristan.fletcher@severed.overflow.com](mailto:tristan.fletcher@severed.overflow.com)

Tristan Fletcher, via e-mail



▲ Option two: The CyberVision 64/3D

## Save my Overdrive!

I'm writing with a long overdue question, as my A1200 has remained unexpanded for too long.

The only additions to it at the moment are an extra 4Mb of RAM, and a 540Mb Overdrive hard drive – which seemed like a good idea at the time, but now CD-ROMs and modems are getting cheap (and essential) it doesn't seem quite so clever. So, without wasting my existing hard drive, how can I best fit a CD-ROM and modem, preferably with the minimum cost and hassle, with my PCMCIA slot already in use?

I notice the Eyetech CDPlus advertised in your magazine which leaves this slot free – how do these work, and are they any good? And have you any suggestions regarding modems, ie; fast serial devices that won't mean binning my Overdrive?

I may be asking too much, but I don't want to start all over again with a new hard drive, as that would leave me even less money to spend on other bits and pieces. I do hope that you can help me, otherwise I will just have to continue forsaking the A1200 while I save up for a next generation Amiga.

Steve Trower, Warks

You may have become attached to your Overdrive, but I'll think you'll find that you do not strictly need it. If you open it up, you will find a 3.5" IDE drive inside. This drive can be mounted inside your A1200 and connected to the internal IDE interface. Eyetech (01642 713185) can supply you a kit for this.

You will then have your PCMCIA slot free for more useful things. For example, you could then use one of the double-speed CD-ROM drives with PCMCIA



## How to write to Q&A

You can send your queries (or a good tech tip if you have one) to Q&A, CU Amiga Magazine, 37-39 Millharbour, Isle of Dogs, London E14 9TZ or preferably e-mail: [q+a@cu-amiga.co.uk](mailto:q+a@cu-amiga.co.uk). We can accept letters or text files on floppy disk. Please do not send an SAE.

WE CANNOT RESPOND DIRECTLY TO QUERIES BY POST OR OVER THE PHONE OR E-MAIL, and cannot answer every Q&A we are sent. Sorry. We do appreciate that you may have a serious problem and until Amiga International re-open a UK office you may have no-where else to turn, but we get so many questions we simply don't have the time or resources to answer them all. We do our best to use letters in Q&A that answer most common problems, so even if your own question is not answered you may find an appropriate solution here.

interface that Power Computing (01234 851500) sells for £79.95.

The CDPlus system from Eyeteck also connects to the A1200's internal IDE interface. It consists of a CD-ROM drive, a 4-way buffered device, all the necessary cables and driver software.

The CD-ROM drive and your hard drive could both be connected to this. Eyeteck do a quad speed CDPlus system for £89.95. The options for a fast serial device are either the PortJunior or the Surf Squirrel. The PortJunior which is available also from Eyeteck for £39.95, has claimed transfer rates of up to 460Kbaud and plugs into your A1200's internal clock header.

The Surf Squirrel is available from Hisoft (01525 718181) for £99.95. It combines a SCSI2 interface with a fast serial device with claimed rates of up to 230Kbaud. If you shop around, you may find a cheap deal on a Surf Squirrel and CD-ROM drive package - which would solve your problems in one.

## A to Z



### I is for incredibly intelligent, which happens to describe John Kennedy. Or is that irritating and irrational?

I is for...

#### Info

The file containing the graphical design of the icon, as well as its position and type. For a file to have an icon, it must have an associated .info file.

#### Icon

A graphical representation of a file, program, directory and so on. We take it all for granted now, but when the Amiga first came out, this was all cutting-edge stuff. We owe it all the work at Xerox labs too, as Apple, Microsoft and just about everybody else "borrowed" from their research.

#### IconEdit

A utility program which is supplied as part of the Workbench suite. It's purpose is to edit or create icons. The version supplied with the A1200 and A4000 Workbench 3 is slightly buggy, and so earlier versions or public domain programs are usually a better idea.

#### Icontrap

Launches a program which sets up some obscure (but useful) features present in Workbench 3 and up. You can use it to change the screendrag hotkey (usually the left Amiga key), and re-position the menus in larger-than-the-screen Workbench displays.

The Avoid Flicker option is for use with Productivity mode and prevents any background screen revealed from operating in interlaced mode. Mode Promotion will try and open all new screens in Productivity mode - it doesn't work with all programs, or with games.

#### IconX

An AmigaDOS command which makes it possible to associate your own scripts with icons. Give the icon you create IconX as its default tool, and the same name as your script. Now double-clicking the icon launches the script.

#### IDE

A hard disk interface, fitted as standard to A800, A1200 and A4000 computer systems. IDE hard drives are cheap, and faster - ideal for

personal computers in fact. They are available in 2.5" and 3.5" sizes: the A1200 and A800 computers were designed to house 2.5" drives, but it's possible to squeeze 3.5" drives in too.

The Amiga IDE interface can also support ATAPI compatible CD-ROM drives, with suitable cabling and driver software.

#### If

An AmigaDOS command which tests a condition, causing different actions to happen depending on the result.

#### IFF

Interchangeable File Format, the Amiga's standard for saving information to disk. IFF files are based on the notion of "chunks" inside a "wrapper", and different chunks can store different types of information. A four-character name at the head of each chunk describes its contents to the program loading it. IFF files can contain pictures, sound, text and almost any other kind of data.

#### ILBM

InterLeaved BitMap, just one of the type of IFF chunks in common use. ILBM files contain images.

#### Info

AmigaDOS command which lists information on the disks currently installed. Used either by itself, or with the name of a device, such as info dh0.

#### InitPrinter

Mostly useless AmigaDOS command which sends a reset command to a connected printer.

#### Input

Starts the preference program which controls mouse speed, keyboard repeat rates, click speeds and so on. Make sure you select "British" from the keyboard type. Unless you're not using a British keyboard of course.

#### Install

An AmigaDOS program which makes a floppy disk "bootable". Apply it after formatting to make a disk which is capable of starting up

your Amiga. Of course, you'll also need to copy the usual Workbench/AmigaDOS files to it.

#### Interface

Anything which connects two different items of hardware, software or almost anything. A hard drive interface is the hardware which allows a computer to communicate with the disk drive. A User Interface is the collection of buttons, windows and controls which allow a person to use a program.

#### Interlace

Often simply referred to as a "flickering" screen mode. Interlaced screen displays work in the same way as an ordinary TV image, with two fields of information updating the display every 1/50th of a second. Unfortunately, unlike a typical TV image, the Amiga's display contains lots of very sharply defined lines which makes the display appear to flicker.

Try recording an interlaced display to video tape though, and you'll get better results than using a non-interlaced display.

#### Internal

Some key AmigaDOS commands are built into the Amiga's Kickstart ROM rather than existing as programs in the C: directory. These are called "internal" programs. Enter Resident at a Shell for a complete list.

#### Internet

The world-wide network of computer networks, capable of supporting electronic mail, Web pages and even moving video and sound.

#### Intuition

The Amiga's Workbench system of icons, mouse pointer, windows and so on is collectively referred to as "Intuition". Quite a cool name really, although most people call it Workbench.

#### Iprefs

A small program which automatically runs in the background. It's launched by the startup sequence. It copies values stored in ENV:sys and applies them to set up colours, screen resolutions and so on.



# Backchat

**Back with the chat, it's what you might call a letters page. If you want to add your bile to the stew, write to the address below or email us at [backchat@cu-amiga.co.uk](mailto:backchat@cu-amiga.co.uk)**

Backchat  
CU Amiga  
37-39 Millharbour  
Isle of Dogs  
London E14 9TZ

## Listen up coders!

There is a lot of good software written for the Amiga by very talented people but (begin gripe mode) why do so many of those programs not include that small bit that allows the user to quit without having to reboot? It really annoys me that a potentially excellent piece of software is ruined by leaving out this important piece of coding. I can tell you here and now that I, for one, will never use a piece of software twice, let alone register it, if I cannot quit to Workbench or DOS.

I have full admiration for those people who write software just for the love of the Amiga and its users, often for very little or no recognition, but I cannot bring myself to admire their software if it does not contain a quit option. Thankfully, most software produced does allow the user to quit and it is those programmers who put that extra little bit of thought into their programs that make the Amiga the joy to use that it has always been (end gripe mode).

Mark Crowley, via email

## Obligatory car analogy

My friend owns a 1958 Volkswagen Beetle. It cost him £2000 four years ago and since then he has spent over £8000 pounds rebuilding it. It has an 1192cc engine which can pull the car to almost 60 mph, a cold uncomfortable interior, 6 volt

**"I think it is time someone at Amiga Inc addressed this by making a real "Amiga Office" package or something of the likes of Claris Works."**

electrics, crossply tyres, a dodgy gearbox and you can't hear yourself think inside.

With the money he has spent on it, he could have had a nice Ford Fiesta with a 16 valve engine which could go 100 mph, a nice stereo... (you get the idea). However, He doesn't want a Ford Fiesta. To him the Beetle is more than a car. It is not a mode of transport, it doesn't matter that it can't even reach the speed limit, that he can't listen to music in it, that it rattles and grates

## Microsoft joke of the month

A Boeing 747 was making its approach for landing in Seattle when an electrical malfunction disabled all of the aircraft's electronic navigation and communications equipment. Due to the clouds and haze, the pilot could not determine the aircraft's position and course to steer to the airport.

The pilot saw a tall building, flew towards it, circled, drew a large sign, and held it in the plane's window. The sign said "WHERE AM I?" in large letters. People in the tall building quickly responded to the aircraft, drawing a large sign that read "YOU ARE IN AN AEROPANE". The pilot looked at his map, determined the course to Seattle airport and landed the plane safely.

After they had landed, the co-pilot asked the pilot how that sign helped determine the plane's position. The pilot responded "I knew that had to be the Microsoft building because, similar to their helplines, they gave me a technically correct but completely useless and crap answer".

Duncan MacDonald, Swansea

**Chortle, wheeze, fnuk fnuk etc... Come on, you can do better than that. Send your Microsoft jokes to "Gates Gags" at the normal CU Amiga address. The best will be printed each month in this, our brand new Microsoft gag section. Assuming we get some good ones that is.**

as he drives it. That's not the point. The point is that it has character, a personality of its own that it runs well enough for him because he's not bothered about racing Escorts at the traffic lights. He is above that, a different breed of car owner, one who has his own tastes dictated by

**Van into the equation somewhere along the line to boost your chances of publication.**

## Amiga Office

This is the first time in my life I've written to a magazine, and this time I really want to be heard.

Everybody knows that something needs to be done fast for the Amiga platform to survive. I look at the magazines, see the rants on the Net, read the speeches and everything but it seems to me a lot of people lose the perspective of things: computers are supposed to be useful. I don't see what is interesting in having a rocket engine on the desk if you don't have a use for it.

One thing I see right now is a very serious lack of concrete application software for the Amiga. I see great packages: WordWorld, Final Writer, Turbo Calc... but no real cohesion between these. I think it is time someone at Amiga Inc addressed this, by making a real "Amiga Office" package or something of the likes of Claris Works. Tons of people don't

what he knows he likes, not what is the latest trend. Anyone can spend £10,000 and own a Ford Fiesta but not everyone has the passion required to drive a Beetle.

To him there is no comparison because to him the Beetle and the Fiesta aren't even in the same class.

Sam Cooke, Cambridge, England.

**Hint: if anyone else wants to get a car-computer analogy into Backchat, work a Split Screen VW**

## Sam supporters club

### Part 1

Dear John

I read your article in this month's mag on the Sam Coupé with interest, not because I had one, but because I was one of those Spectrum+3 users who considered it as a possible upgrade path back in 91. However, lack of funds and luck made me wait until I could afford my A1200.

I was digging around in a packing case and found the enclosed "Your Sinclair" Spectrum magazine. If you look on page 71 there is a bit of a rave review on the Sam, Hmmm, looks like a fair out-break of optimism supported by a large amount of artistic licence in the wordage. After reading that, a bloke could get a bit mis and paranoid about his favourite computer today. Never mind if Gateway 2000 sink the Amiga - I've still got the old Speccy+3 to fall back on. Oh yes, I still have it.

Please keep the mag and show it around the (ahem) "younger" members of the publishing team to show them how it was in those days.

M Domoney (Mikdom) , Lincs

### Part 2

Never before have I been moved to tears by words written about a machine (apart from when Wordworth suggested "myalgia" instead of "my Amiga"). John Kennedy's Techno Tragedy article about the Sam Coupé moved me so much that I scrambled up to my loft and got out all my old issues of Your Sinclair. Oh how I laughed at the excessive use of

want or need more than that from computers.

On a more technical side, the Amiga is years behind the PC in "visual" development tools. I think it's essential that something like Visual Basic or Delphi comes to the Amiga to get more software going. Imagine the power of the Amiga combined with the ease of programming a visual language... and don't forget that the bulk of PC develop-

phrases like "Blimi!", "Lummrocks!" and "Specchum!", but most of all the YS motto: "It's crap, in a funky skillo sort of way". Oh how many more techno tragedies stared up at me from the pages: the Spec-drum, the +D drive, the list is endless.

Cometh I to the August 1991 issue. In the "Tipshop" section was a letter written by a Mr G Sweeney. Not the same G Sweeney from March's CU Amiga letters page? Surely not? Anyway, G's (as he was referred to throughout the letter) to for Kendo Warriors doesn't work so don't try it or people will laugh at you in the street! And yes, I still have all the magazines from June 91 to September 93. I'm not sad, and I have loads of friends, honest.

Captain Kumquat, Andromeda

Seeing as that magazine was published by A.N. Other Company, we've re-printed a bit of Sinclair User, which was always much better than Your Sinclair anyway. Oh, and since when, Captain Kumquat, do you get a Luton postmark on letters sent from Andromeda?

ment is done with those languages today.

I also think that there are plenty of uses for the Amiga OS beyond the machine itself, and I cannot help but rejoice on the low development platform costs.

I also agree with Andrew Korn on a "kids" Amiga. As long as it is well done (68040, 16MB and a CD mini-mum), it will catch on.

Just my .02\$...

Francois Landry, via email

## Amiga UK, OK?

I'd like to make some comments on Amiga Inc/International:

1. I agree with all of the April '98 issue's Points of View, especially about having a UK office. It is in the UK that the Amiga has had all the best software and hardware companies and I urge you and your readers to bombard Amiga Inc/Int with emails and letters telling them "We want a UK office!"

2. I also think that Amiga should make a new machine THEMSELVES and get it into the shops now! Third parties aren't big enough to risk it themselves and the Amiga isn't going anywhere until they do. If they do this the third parties will follow their example. Again I urge you (as the biggest selling Amiga mag) and your readers to tell Amiga Inc/Int this as I think it's very important and

should be addressed by Amiga.

3. Reading a recent issue of Official PlayStation Magazine they said "With the Amiga gone, software publishers are wondering where new generation programmers will come from, because PCs are too expensive and don't have the 'bedroom programmer' effect". Why don't Amiga Inc capitalise on this and do some sort of deal with Sony to have cheap PlayStation development software distributed with new Amigas so would-be programmers can then cheaply program a PlayStation game and then take it to an official Amiga or Sony dealer and have the CD cut for a few quid. I think this would be excellent publicity for the Amiga as all the PlayStation mags would no doubt cover the story. As before I urge you and your readers to email Amiga Inc, Sony and the PlayStation mags.

Taj Hussain, Leeds

## Slapped wrists

It is very annoying when trying to follow your otherwise good tutorials to find that the text does not match with the screenshots or that the wrong pics are inserted on the page. Let's take a few examples

from the April 98 issue. PPaint tutorial Pt 3, Effect of dithering. The text does not match the pics - which is correct? Also pics 9 & 10 are identical - not much use to demonstrate the effect!

I also commented on pics in the Scala tutorial showing buttons not on my CD version of MM300 in a previous E-mail to Q & A. Disk loading instructions come in for their fair share of mishaps too: April's issue refers to Scala not Shapeshifter.

It's a pity that this sloppiness mars an otherwise excellent magazine. Just another 5% required.

John Thompson, Farnham

Well spotted John. It's not how it should be and we won't bother reeling out the excuses but will try even harder next time. Can we go now?

## The Amiga problem

Having been a dedicated Amiga since 1988 when I binned my Speccy, I am becoming increasingly alarmed by the attitude currently prevailing that we are witnessing

**"There is of course a school of thought that says I must be mad to spend good cash on a dying medium."**

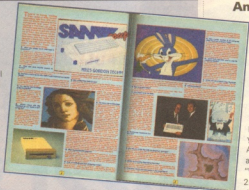
the death of the Amiga.

I support wholeheartedly the view expressed by Andrew Korn in May's CU Amiga, that we must support developments by spending hard cash. During the last 12 months I have spent over £500 on hardware and software for my 1200, including a CD-ROM and a 1.6Gb hard drive. Even though these items have been disproportionately very expensive when compared to the vast PC market, I have deliberately stayed away from converting to the PC.

The main reason for this has been the cost of PC software. My hobby is graphics and in particular 3D and raytracing. The cost of many 3D packages for the PC is truly horrific!

There is of course a school of thought that says I must be mad to spend good cash on a dying medium and we see all too often in computer mags the recommendation to "buy a second hand 1200" as though it just isn't worth spending out on a new one.

The other advice given regarding the question of upgrading is "hang on a bit and see what the model 123XYZ is like before buying. There is always a good reason not to buy



anything as it will soon be out of date, but can you really put a figure on 'lost enjoyment'? Buy it, use it and enjoy it – to hell with the next stage of development!

People who rushed out and bought the first A1200s were rewarded by them catching fire. Those who bought 12 months later were buying a great little machine with the problems ironed out, so should we rush at the latest thing which may not have been tried and tested?

The true Amigan does not want to be a computer 'owner' having to have the latest and fastest gizmo. He/she is a computer 'user' who bought their machine to do a specific job.

Support the Amiga, expand your machine with tried and tested hardware, look after the developers as they have looked after us and never mind what the next big gizmo will be. And remember: tomorrow will be yesterday in two days time!

John Hughes, Salisbury

### Attitude problem?

In the May Points of View John Kennedy says that Amiga is an attitude, no more and no less. While I don't disagree that certain attitudes form much of the essence of Amiga, I believe there is a bit more to it.

My assessment of what makes up the Amiga is that it is the attitudes (or expectations) plus a definite set of standards. The standards I believe are the embodiment of the attitudes. Standards assure that things will work together and that things will be supported. The main thing the Wintel world lacks is good, reliable standards. The main thing the Mac world lacks is openness. The Amiga struck a good compromise between the two in the past, and is in the process of being revamped to do the same thing in the future. Amiga people want a system which is versatile and powerful while at the same time being friendly and reliable. We do not want to be dictated to by software nor hardware nor yet the companies which manufacture them. We

want the computer to be our servant and not vice-versa. That is our attitude and our goal.

Donovan Reeve, via email

### Time for change

It seems there are two camps when it comes to the question of the future of the Amiga. One of these thinks that Amiga Inc should get tough, get a big budget from Gateway 2000 and take on Microsoft. The other camp wants the Amiga to retain its individual identity and become successful once more without chasing the lead set by Bill Gates.

This was backed up by the results of your Big Amiga Poll in the May issue. In your analysis of the results, this one in particular, you implied that it was "wishful thinking" to hope that anyone could budget Gates from his current position. While I respect your frank and

**"Also, while it's hard to see how things could change, I bet that's what people thought about the Romans at the height of their dominance!"**

honest comment (the last thing we need is a mag that's nothing more than an unofficial propaganda machine for Amiga Inc), I feel this isn't such a pipe dream after all.

Remember, Gates and his empire came from humble beginnings. Also, while it's hard to see how

things could change, I bet that's what people thought about the Romans at the height of their dominance! Even though people want the hassle taken out of buying and using personal computers (something which has been exploited incredibly well by Gates) I think people will soon come around to the idea of having a choice.

OK, so the accountant who just wants to crunch numbers probably won't give a toss what machine or operating system he uses. However, even those who don't want to make their own decisions will ask the advice of someone else. This could be a friend, a technology journal or a salesman.

In the workplace, the computer systems people use are chosen by people who have a specific interest in information technology. It's these people who could be the linchpins in the potential uprising of the Amiga as a 'new' platform. If it's

sold properly to IT buyers and systems analysts it could rapidly filter down into the high street and into the home on the back of their expert advice, and also the plain fact that someone sitting at work in front of a computer that says "AMIGA" on it is more likely to go for the same brand when looking for a home PC (that's PC meaning Personal Computer in this case, not a Windows box).

It might not happen this way. I'm certainly not saying that it will, but it's worth bearing in mind the fact that it could happen like this. Let's hope it does.

Lee Burgess, Kent

That's a good point Lee. One thing worth remembering is that technology comes and goes almost as regularly as the seasons – strange how we're still stuck in the summer of 1985 then isn't it?

## To the Point...

### Don't knock CDTV!

In the April Issue of CU Amiga in the Backchat area, some bloke/blokes called 'Jaydee' wrote in asking if there would be any attention to the Amiga CDTV. CU replied with a basic "no" stating that the CDTV was "absolute technology". However, it may be old and obsolete, but it's still the only f'ing machine in the world that will successfully play my "Nasa The 25th Century" CD that I dearly love!

Hugo Wilkinson

That about sums up the usefulness of a CDTV in the late 1990s – or the early 1990s for that matter! Maybe next month's cover feature will be 101 things to do with a CDTV. Suggestions on a postcard to the usual address...

### Digital cameras

Your digital camera feature in the May issue has convinced me I must have one! I'm hoping to get hold of one of the Olympus models when I've got enough cash together. I'll send you some snaps via email!

Gary Beach, via email

You do that Gary. We'll keep you posted of further developments on the digicam front. Take a look on page 64 of this issue for a review of Power Computing's offering which just missed last month's deadline.

### More music

I've always found CU Amiga the best Amiga mag for music coverage, but recently there hasn't been much in your mag. Why not? We want more music coverage! How about getting Dex & Jonesey or Aphrodite to do a regular column? I'm hearing lots of positive things about Aphrodite recently with Micky Finn and Urban Takeover. Is he still using his Amigas?

Guy Shinkler, West Glamorgan

.....  
CU Amiga reserves the right to edit letters so that they make sense, fit onto the page and don't ramble on too much.





# 3 ISSUES FREE!

**SUBSCRIBE TO CU AMIGA THIS MONTH AND GET 12 ISSUES FOR THE PRICE OF 9\***

Complete the form below and send payment to: CU Amiga Subscriptions, Lathkill Street, Market Harborough, Leicester LE87 4PA or if you wish to pay by credit card call our subscriptions hotline on 01858 435350 quoting source and offer codes. Lines are open from 8.30am to 9pm Monday to Friday and 10am to 4pm Saturday and Sunday.

## 5 GREAT REASONS TO SUBSCRIBE:

- Save £18.00 on the CD issue, £14.00 on the disk issue
- No risk that the newsagent will be sold out of the CD or disk edition you want
- All issues delivered to your door so you'll never miss an issue
- No charge for postage and packing in the UK
- A money back guarantee on un-mailed issues if you are not satisfied

**SUBSCRIPTION HOTLINE 01858 435 350**

## SUBSCRIPTION ORDER FORM:

Name: .....  
 Address: .....  
 Postcode: .....  
 Date of Birth: ..... Telephone: .....

Source codes: CD Edition 0010 Disk Edition IAZT Offer codes: CD Edition CD 0010 Disk Edition DB IAZZ

### Annual Subscription Rates:

United Kingdom + NI  
 Air Europe + Euro  
 Rest of world /air

### Disk version

☐ £40  
☐ £55  
☐ £75

### CD version

☐ £54  
☐ £69  
☐ £89

## METHOD OF PAYMENT (A receipt will not be issued unless requested)

### Direct Debit Instruction to Your Bank/Building Society

Account in the name of: .....

Payments will be deducted quarterly.

Account No

Son Code

Name and Address of Bank/Building Society .....

Signature .....

Date .....



Please pay EMAP Consumer Magazines Ltd. Direct Debits from the account detailed in this instruction subject to the guarantees issued by the Direct Debit Guarantee. Banks/Building Societies may not accept direct debit instructions for certain kinds of accounts.

### Payment by Credit Cards

Please debit my credit card for the amount shown overleaf.

☐ Mastercard ☐ Visa ☐ American Express ☐ Diners Club

Access/Visa/American Express/Diners Club Account No

Expiry Date

Date

Signature .....

### All other payments

I enclose a ☐ Cheque ☐ Postal Order  
☐ International Money Order ☐ Sterling Draft (Please tick)

**MADE PAYABLE TO EMAP IMAGES LIMITED**

On occasion EMAP Images Limited and associated companies within the EMAP Plc group may permit other reputable companies to make offers of products or services which we believe may be of interest to our customers. If you DO NOT wish to have the details given here passed on, please tick the box ☐ or mention when calling. Telephone calls may be monitored for staff training purposes.



## Sleeping with the...?



When John Kennedy used these hallowed pages to suggest Windows CE for a future Amiga operating system, he was taking his life into his own hands. I hope I'll get a little less in the way of abuse by suggesting that rather than sleeping with the enemy, the Amiga ought to just get married to an old bedfellow.

We've been emulating Macs on the Amiga for years. Why not? It works well, far better than emulating PCs, because of the family

similarity with Mac hardware. AGA doesn't do a great job of MAC screenmodes, but a graphics card will solve that. Of course the Mac beat us to PPC, but we should overcome that compatibility hurdle in the near future.

Things change, and while there is much debate on the ideal future shape of the Amiga, there are a few things which are now settled. We're going PPC, we need modern graphics cards. Whatever else happens, these two can be counted on. Of course this means closing the remaining gap between Amiga and Mac hardware - Mac OS could run on Amiga hardware. And, with a few qualifiers, the reverse would be true. Assuming we get a PPC version of Amiga OS, why not run it on Mac hardware?

Macrosystem's Draco soldiered along without the custom chips reasonably well, but the need for AGA compatibility gets less and less. Just so long as we get drivers for a few PCI cards, anything capable of opening a retargetable screen could work

**"Just so long as we get drivers for a few PCI cards, anything capable of opening a retargetable screen could work fine."**

fine. Older software and AGA games would choke, but that's about it. With the growing popularity of AHI, sound will become less and less of a problem.

Recent changes in company policy at Apple might make this quite acceptable to them. As Amiga Inc are concentrating on OS development and standards design for third party manufacture, Apple have moved away from this model to concentrate on making money out of hardware sales.

So why shouldn't Apple Inc and Apple join forces? Apple could sell more hardware, as it could sell it into the Amiga market, and the Amiga would have a large, ready made supply of hardware readily available. The same hardware could be offered with a choice of ROM boards depending on whether it was an Amiga or a Mac the purchaser

was after, or even with a dual ROM for a multi OS platform. It would mean we'd benefit from Mac hardware developments, while they benefit from ours.

Companies like VillageTronic could concentrate their resources on hardware which ran on both platforms instead of having to do ranges for Macs and Amigas, and the Mac guys could get hold of a phase5 multi PPC prebox.

I know that some of you think that the Amiga is all about custom hardware, but it still can be - why not share it with the Apple guys, while benefiting from their custom stuff too?

With Mr Gates so dominant in the market, a strategic alliance between the Amiga and Apple could only be a good thing. ■

Andrew Kern is Deputy Editor of *CU Amiga*

## Software Piracy on the Amiga

A regular occurrence in the Amiga newsgroups is former Amiga users asking for software to run on UAE, "not knowing" that Amiga software still is copyrighted, people shamelessly asking for pirated software, and people revealing themselves in comments about software that only apply to cracked versions.

All this has been discussed in the newsgroups, sometimes by the authors themselves. For example, by FFNews author Thorsten Stockmeier when he got angry at the number of pirated copies - some people mailed him bug reports using pirated keyfiles (you can tell by the header). Someone even flamed Angela Schmidt because he had problems with a pirated version of her tool DiskKey - cracked versions may damage your disks.

Since there aren't many big commercial developers left, crackers have hit shareware authors and smaller companies hard, people who often have to

earn their living from the small numbers they sell. Most shareware authors are affected by such activities, including myself. Recently someone sent me an email where he stated:

"Do you have any reports about fake keys for your program? One man told me that he can get me SuperView key..."

"I decided to check my key. I think, you must make it more complicated. [...] I know that now it is a bit complicated to change key-code. But in future (SViewNG2) make some good coding here." Unfortunately, one can't protect programs against experienced crackers. You can make the protection difficult enough for the average user and programmer, but if someone with professional knowledge tries hard, he will find a way.

If someone wants to fake keyfiles of my software or crack it, he has to put some work into it. There is no excuse and no "oops, it was just accidental, I couldn't help". Surely that person must know that

**"I prefer to spend my time on programming and improving my programs rather than thinking about new methods against software pirates."**

he or she is going to destroy a software development.

What should I do against such individuals? They'll never learn. They destroyed most of the Amiga's game and application market in the past, and they continue to do that for some strange kind of "fame".

Nevertheless there's a price they will have to pay for it: more and more programmers and software houses will have to stop developing for Amiga, because it doesn't pay, and in many cases they can't earn their living any more.

I prefer to spend my time on programming and improving my programs rather than thinking about new methods against software pirates - experience shows that such efforts mostly affect the honest users and decrease overall product comfort/quality.

Someone recently mentioned a wise saying: "locks are only there to

keep the 'honest' people out, as criminals have all the tools to gain entry". Feel free to spread the word of this article (instead of keyfiles of my programs) to every cracker you know out there - if there's a bit of brain and real fame left, they may like to consider it.

My last word - 'though I can't say it better than Miami author Holger Kruse did after the recent Miami Trojan issue - one never knows what additions a cracked program may contain. The same goes to normal application software (eg. certain Telnet clients) suddenly released by well known cracking groups.

Spread the word, not the disk and don't trust the pirates! ■

Andreas R. Kleinert is author of the AK datatypes and many other well-known shareware programs

# TECHNO TRAGEDIES

## The BSB Squarial

**Back in the old days - before The Simpsons was known by all - some houses had little baking trays attached to their walls... Why?**

In the late 80's and early 90's, the British television viewing public were in a quandary. Suddenly they were being told that "terrestrial" television was old hat, and the future was in the sky: to the East in fact, by about 19 degrees. Thanks to satellites such as Astra and Macropolo, broadcasting was coming from space, offering sporting events, movies and real competition to the old fashioned ground based terrestrial stations.

The two rival services which were fighting for the UK market were Rupert Murdoch's Sky broadcasting, and BSB - British Satellite Broadcasting. BSB had the blessing of the UK government, and more importantly for us, it had the "squarial". A horrible new word it might have been, but squarials were relatively discrete little units compared to the giant circular monstrosities we happily bolt to our houses these days.

The black, flat little antenna looked like it was going to usher in the age of hi-tech satellite TV to a country only just getting used to the fact that their TVs now could pick up Channel Four if there was nothing else on.

BSB tried to do everything the "proper way", using a special picture transmission format called

D-MAC. D-MAC was a high quality system, but it was also quite complicated. The decoder boxes were expensive to produce, and it was for this and various other reasons that the launch of the BSB service was delayed and at least one national launch was aborted.

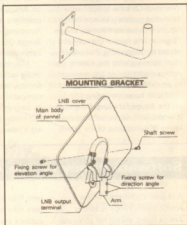
Meanwhile, Sky operated theirs using the considerably cheaper PAL system. No-one was quite sure if the PAL broadcasts would work from satellite, but they did and they worked well enough for viewers to be happy. Of course, it was totally incompatible with the BSB system, and no-one wanted to have to install two satellite dishes and sit two black-box decoders under the television sets. The public had to make a choice.

The fact that Sky pushed its way onto the market and was running a year before BSB was instrumental in building up a base of subscribers. Murdoch's media empire was able to push Sky as the dominant standard. However, virtually giving away the satellite receiver kits was costing both companies a lot of money, and it became obvious that the market wasn't big enough for two rival systems. In 1990, Sky and BSB merged to become British Sky Broadcasting.

The D-MAC transmissions were stopped, and the squarial became a useless piece of black plastic mounted on outside walls.

### The squarial lives on

OK, so it's not really fair to call the squarial itself a failure - it was the manner in which it was implemented by BSB which killed it off. The squarial still works well as an antenna. I've seen DIY electronic projects which use the squarial as a local radio transmission system, and there is at least one com-



▲ Of course, you may find it of more use as a handy coat-hook...

mercial system which uses squarials to beam video signals up to 75 feet using low powered transmitters.

The receivers too can be modified to work with D2-MAC satellite systems, and there are many enthusiasts in the UK who use the modified BSB set-up to watch signals from the myriad of orbiting transmitters hovering above the earth.

If you are interested in finding out more about the squarial, and how it can be given a new lease of life, see the excellent web sites below which detail the rise and fall of the squarial. ■

John Kennedy

### Web resources

<http://www.meldrum.co.uk/mhp/testcard/bbsb.html>  
<http://homepage.eurobell.co.uk/colinmc/bsb.html>  
<http://www.mbarber.demon.co.uk/sky-birth.htm>

The European Satellite User Group  
 Subscription details - UK 01227 265222



▲ I'm sorry, but shouting will get you nowhere here.



# AMIGA REPAIRS

## COMPUTERS AND MONITORS

# WHILE-U-WAIT!!!

Analogue is a recommended repair centre in the UK by Amiga Technologies

### Attention Dealers

Ring/Fax Now for best trade prices and terms on Repairs, Spares, Floppy Drives, Hard Drives, CD Rom Drives and Memory Upgrades.

- FAST TURNAROUND
- 120 DAYS WARRANTY ON ALL REPAIRS
- £10.00 EXTRA CHARGE FOR WHILE-U-WAIT SERVICE
- PICK UP & DELIVERY CHARGES £7-05 EACH WAY
- A1500/A2000/A4000.....EQUATION

### INTERNAL FLOPPY DRIVES

CAN BE USED AS HIGH DENSITY INTERNAL DRIVE IN A1200

A500/A500+/A600/A1200 .....£24-95

A500, A500+ & A600

**£39.95**

A1200

**£49.95**

Please call for a better than price match deal

### MEMORY UPGRADES

A500 Upgrade to 1 Meg

**£13-95**

A500+ Upgrade to 1 Meg

**£19-95**

A600 Upgrade to 1 Meg

**£19-95**

UNBEATABLE PRICES  
Please call for latest best price

A1200

0Mb

**£44-00**

4Mb

**£49-00**

8Mb

**£63-00**

### APOLLO ACCELERATORS

1230 Lite .....£68.00

1230/50 .....£119.95

1240/25 .....£128.00

1240/40 .....£188.00

1260/50 .....£268.00

1260/66 .....£309.95

### SIMMIS

4Mb .....£11.50

8Mb .....£19.95

16Mb .....£39.95

32Mb .....£69.95

### SCSI CD-ROMS

Quad Speed SCSI

+ Squirrel.....£119.00

### IDE CD-ROMS

Hitachi 16 max.....£69.95

### MODEMS

BABT APPROVED

+ NCOMM SOFTWARE

+ CABLES

33.6k.....£69.00

56k.....£89.00

### LOLA

### GENLOCKS

L1500.....£169.95

L2000S.....£349.95

## SIMPLY THE BEST AFTER-SALES SERVICE

GUARANTEED SAME DAY DESPATCH (Subject to availability)

### IOMEGA ZIP DRIVES

Zip Drive 100mb SCSI .....£135.00

Zip Drive including Squirrel Interface .....£169.95

100mb Zip Cartridge .....£15.95

### HARD DRIVES SALE

#### 2.5" IDE HARD DRIVES

All hard drives are preformatted, partitioned with Work Bench loaded and include cable & software

80MB .....£49.95 540MB .....£89.95 1.08 gig .....£109.95

120MB .....£54.95 720MB .....£94.95 2.10 gig .....£169.95

340MB .....£79.95 810MB .....£99.95

2.5" IDE Cable & Software (If bought separately) .....£9.95

#### 3.5" IDE HARD DRIVES

2.1 gig .....£119.95 4.3 gig .....£179.95

#### 3.5" SCSI HARD DRIVES

540MB .....£99.95 2.1 gig .....£175.00

1.08 gig .....£190.00 4.3 gig .....£295.00

Please call for other capacities

## AMIGA COMPUTERS

A500 With PSU + Mouse + Mat .....£79.95

A500+ With PSU + Mouse + Mat .....£89.95

A600 With PSU + Mouse + Mat .....£99.95

A1200 Magic Pack .....£199.95

A1200 with 80Mb Hard Drive .....£249.95

A1200 with 170Mb Hard Drive .....£319.95

A1200 with 340Mb Hard Drive .....£269.95

A1200 with 810Mb Hard Drive .....£299.95

A1200 with 2.1gig Hard Drive .....£369.95

A2000 (Available) .....£Call

A4000 (Available) .....£Call

### TRADE IN YOUR AMIGA FOR A PC

WE BUY DEAD OR ALIVE A1200 AND A4000

NEW

RING US FOR A REASONABLE OFFER FOR YOUR A1200/A4000 COMPUTER OR JUST MOTHERBOARD - IN ANY CONDITION

### CHIPS \* SPARES \* ACCESSORIES

ROM 2.04 .....£18.00 A500/A1200 KEYBOARD .....£29.95

ROM 2.03 .....£19.00 SCART LEAD .....£14.95

A500/A500+ KEYBOARD .....£29.95 MONITOR CABLE .....£14.95

AMIGA HOUSE + MAT .....£14.95 SQUIRREL INTERFACE .....£89.00

A500/A600/A1200 CIA .....£12.00 SUN SQUIRREL .....£18.00

A500/A600/A1200/POWER SUPPLY .....£24.95

A1500/A2000/A3000/A4000 POWER SUPPLY .....CALL

\* All spares are available ex-stock

\* Please call for any chip or spare not listed here

## ANALOGIC Computers (UK) Ltd

Unit 6, Ashway Centre, Elm Crescent,

Kingston-upon-Thames, Surrey KT9 6HH

Open Mon-Fri 8:00am-5:30pm, Sat 9:00am-5:00pm

Fax: 0181 541 4671 email: Analogue\_Comp\_UK@Compuserve.com

**Tel: 0181 546 9575**

\* All prices include VAT \* All prices & specifications subject to change without notice \* Fixed charge for repair does not include disk drive/keyboards \* We reserve the right to refuse any repair \* P&P charges £3-50 by Royal Mail or £7-05 for courier \* Please allow 5 working days for cheque clearance \* All sales/repairs are only as per our terms and conditions, copy available on request \* Please ring to check latest prices.

**SOUNDPROBE  
PLUS  
SAMPLING  
HARDWARE  
ONLY £34<sup>95</sup>**

**CD-ROM DRIVE  
SQUIRREL SCSI INTERFACE  
3 FREE CDS**

**DOUBLE SPEED ..... £79<sup>95</sup>  
QUAD (3.4) SPEED ..... £119<sup>95</sup>  
TWELVE SPEED ..... £169<sup>95</sup>**

ADD £30 TO THESE PRICES FOR A  
SURF SQUIRREL INSTEAD OF A CLASSIC SQUIRREL

**CD REWRITER**

RICOH MP6200/DP MECHANISM  
2X WRITE & REWRITE, 6X READ  
INCLUDES MAKECD 3.1 SOFTWARE  
INCLUDES 5 CD-Rs & 1 CD-RW

**WOT A BARGAIN!**

**£429<sup>95</sup>**



DOUBLE SPEED PACK  
ILLUSTRATED

**BARGAIN  
CD-ROM PACKS**

**CD-RW  
DISCS**

**£16<sup>95</sup>**

EACH

**PACK  
OF FIVE  
CD-R  
DISCS  
£11<sup>50</sup>**

**CINEMA 4D**

**THE CD EDITION (V4)**

INCLUDES CINEMAFONT & CINEMAWORLD  
INCLUDES MEGABYTES OF TEXTURES  
INCLUDES MANY EXAMPLE MODELS & SCENES  
INCLUDES FULL VERSIONS OF MAGICLINK & MAINFOR

**ALL THIS  
AND MUCH, MUCH MORE  
FOR ONLY**

**£99<sup>95</sup>**

(NO, YOUR EYES DO NOT DECEIVE YOU.  
THAT'S NINETY NINE NINETY FIVE)

UPGRADE PRICES

FROM V2

£49<sup>95</sup>

FROM V3

£29<sup>95</sup>

**MEGA  
DEAL**

**TWIST 2  
DATABASE  
£39<sup>95</sup>**

Don't forget our wide range of  
software and hardware for your  
Amiga, which includes music and  
multimedia packages, accelerator  
cards, memory, disk tools and  
utilities, programming languages,  
printing software, zip drives and  
an extensive catalogue of cd-rom  
titles at unbeatable prices.

**FREE MAXONMAGIC WORTH £29<sup>95</sup>  
WITH EVERY ORDER PLACED FROM  
THIS ADVERTISEMENT.  
QUOTE REFERENCE: FREESAVER**

**0500 223 660**



**HiSOFT**  
SYSTEMS

The Old School, Greenfields, Bedford MK45 5DE, UK  
Tel: +44 (0) 1525 718181 • Fax: +44 (0) 1525 713716  
www.hisoft.co.uk • www.cinema4d.com

Call free (within the UK) to order  
any HiSOFT product using your  
credit/debit card. We accept  
Mastercard, Visa, Switch, Delta,  
American Express etc. at no extra  
charge. Carriage is £4 (2-3 day  
service) or £5 for guaranteed  
next day delivery (for goods in  
stock). All prices include UK VAT.  
We also accept cheques, P.O.s and  
official purchase orders.  
© 1998 HiSOFT EADE.

